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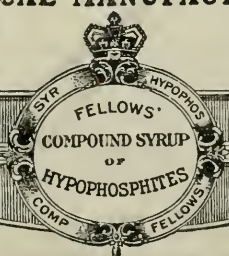

The American Journal of Clinical Medicine

A MONTHLY JOURNAL

DEVOTED TO ACCURACY, DEPENDABILITY AND HONESTY IN EVERY DEPARTMENT OF MEDICINE AND TO THE SAFEGUARDING OF THE DOCTOR

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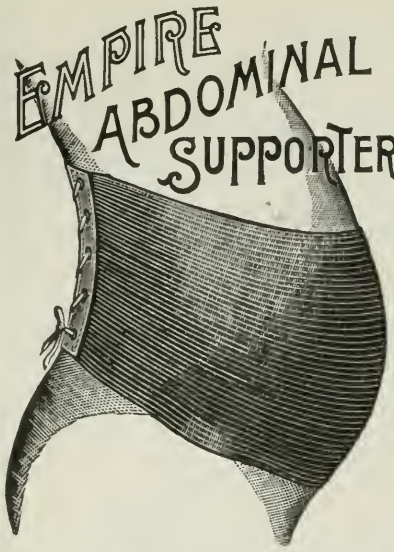

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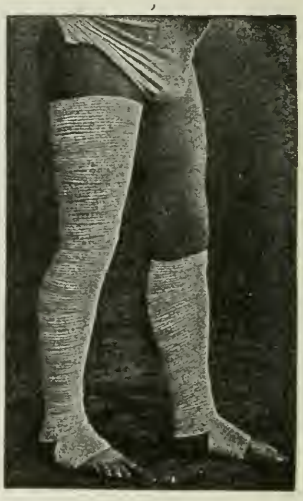

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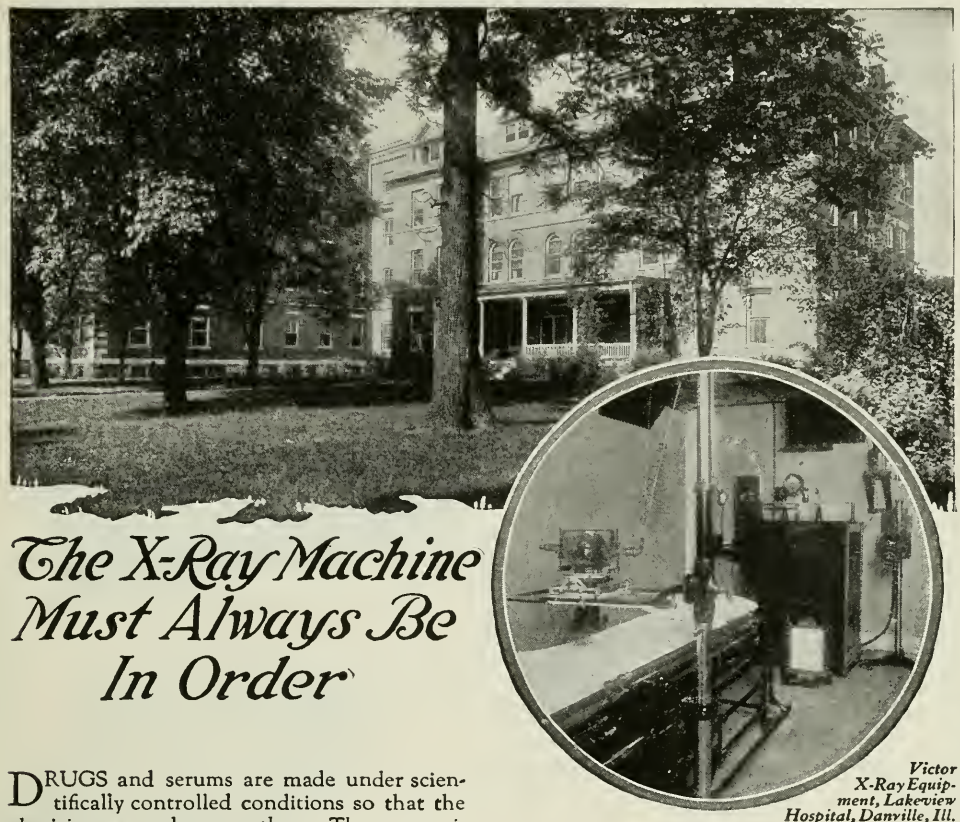

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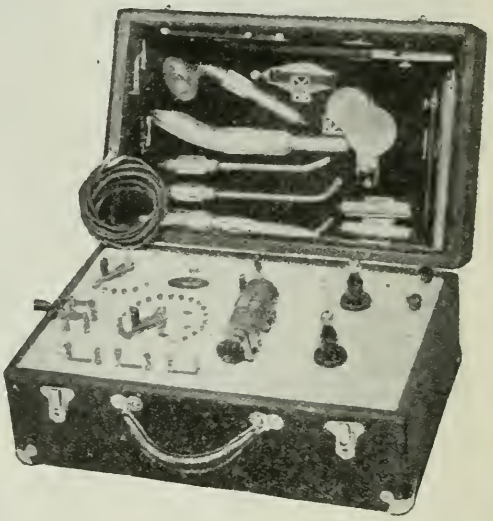

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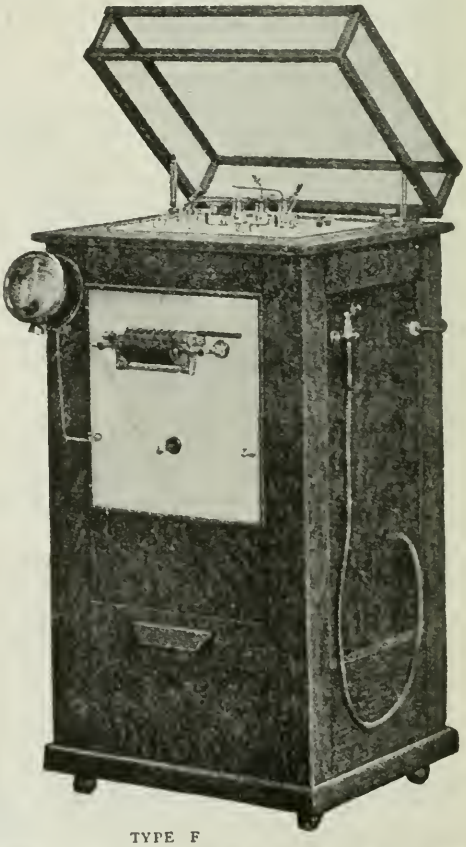

TYPE F

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I am willing to be shown the value of electro-therapy and wish you would send me prepaid your Portable C outfit as per special proposition above.

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My electric current is { alternating / direct }

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Address .....

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Gentlemen:
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Address .....

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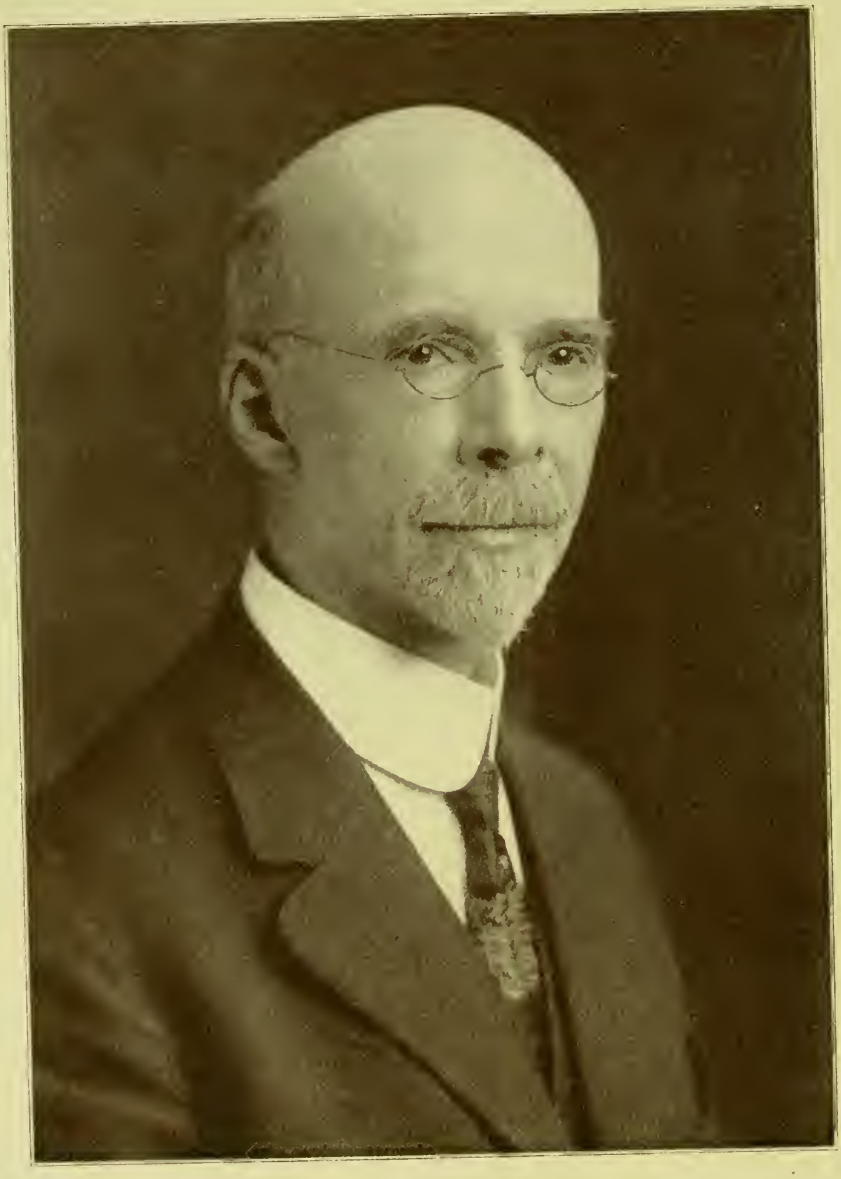

DR. WILLIAM RITTENHOUSE.

ASSOCIATE EDITOR, THE AMERICAN JOURNAL OF CLINICAL MEDICINE

The American Journal of
CLINICAL MEDICINE
Dependable Therapeutic Fact for Daily Use

Vol. 28, No. 11 November, 1921

The Surgeon Himself

So much has been written on the personal qualifications of the surgeon, by surgeons, great and would-be great, that it would seem that any allusion to the subject at this advanced period is nothing less than an anachronism.

However, from time to time, as one gathers experience, one feels that the problem has not been exhausted or at least that certain ideas have not been sufficiently emphasized. When really great surgeons preach sermons to their younger colleagues, it will be noted that their preachments are devoid of arrogance and contain an encouraging and hopeful message. Not so with the would-be great. They, it would appear, are the only ones who know how to operate. They seem to proclaim the divine right of their privilege, and they let one feel that few (beside themselves) are qualified to enter the sacred precincts of the operating room.

Their lectures on surgical ethics would be all right were it not that the discriminating reader can not fail to detect the hidden cloven foot. Those who have had an opportunity to see behind the scenes know in what manner this would-be greatness has been attained, and, to them at least, the pretensions of the quasi-leaders are self-delusions which produce amusement only.

Surgery is an art as well as a science. No one has ever presumed to lecture to artists because they have not come up to some academic standard. Nor is this necessary, since the worst they can do is, to spoil some cheap canvas or a few reams of paper. Their failures are sufficiently effective. This situation does not apply to surgery. When one considers that an indiscriminating public entrusts itself to the loud-mouthed charlatan and pretender as well as to the earnest scientist and artist, there is reason to sound a note of warning; but, this should be directed to the public and not to the members of the medical profession, since these have their own powers of discrimination.

Just now, we hear a good deal about standardization. We are not opposed to standardization, provided that it be not carried too far. Pegasus can not be checked by a harness made according to specifications, nor will a real surgeon pay any attention to his watch or to the size of his-

tory blanks. If his findings in a given case are such as to merit profound investigation and study, he will spare neither time nor paper to record the fruits of his labor.

In the United States, at least, we have a simple method of protecting the public. A young man who feels a desire to adopt the profession of medicine is bound to take a full course in some medical school. No matter what their talents or inclinations may be, all are bound to follow the same prescribed course. Until he has his diploma the future Doctor of Medicine has no voice in the matter. Few schools conduct their teaching in a manner to adapt it to the needs of the students. That there are some men who learn better by sight and others by memory does not enter the minds of the professors, especially those teaching clinical subjects. And, what can one expect when these teachers come for an hour, recite their lecture, perhaps quiz the students or demonstrate a few cases, and then rush to their offices to earn their bread and butter? The student who can answer questions and make occasionally a diagnosis of a case and recite the pathology from a textbook is sure to pass his finals and secure his sheepskin.

Then come the practical years. What a treasure to the willing learner! What an opportunity for clinical information! Well and good, if he has an opportunity to see real masters at work, if he has the guidance to develop his faculties in logical reasoning. But, how often will this be the case? In most hospitals, it is the same routine day in day out, and the staff men are glad to have a licensed physician remain all day and all night in the building because, in the event of a hemorrhage or dilation of the stomach or other complication, their conscience can be lulled by the fact that a young, full-fledged colleague has been on the spot.

That the majority of recent graduates should have the ambition to wield the scalpel is pardonable. One may make many visits to a patient and pull him through a grave case of double-sided pneumonia and there is little glory in it, certainly no advertising. But, let some one go to the hospital for an operation and something awe-inspiring penetrates his family and friends. If he return, after some time, the man who did the operation has a standing ad. in that particular group of possible clients.

How often the result will not be all that was desired, how often the technics have been such as to produce serious complications and invalidism, only the surgeon(?) and we know. No, the operator may not even know it for, the patient will try some one else and perhaps submit to one or more further operations to undo the effects of a bungling job. The state has done all it could to insure a good grounding and it can go no farther under its present police powers. The courts would have to consider every individual case and, when it is known that a young physician has to struggle for his existence, it is realized why few would go to the trouble of bringing suit. However, the presence of numberless faith-curists and masseurs and herb doctors and spiritual healers *et id omne genus* is, doubtless, the most serious indictment of our noble profession.

We do not hesitate to assert that, if every physician were competent and did his full duty by his patients, there would be no need for discouraged men and women to grasp at straws.

But, we have to deal with facts and not with conditions. We, no more than certain surgical societies, have the moral right (and, certainly, not the legal one) to set ourselves up as arbiters or as authorities who must be obeyed. That sort of thing can not last in a democracy.

Nevertheless, we have a right to give well-meaning advice and our only advice is, that each man who desires to do surgery consult his own conscience. If that conscience tells him that he is as fully competent to deal with any given surgical problem as the men are to whom he can look up as masters of the profession, if that conscience further tells him that the operative therapy is the only one in a given case, that can bring relief and save life, then there is no further problem. That man is a surgeon. If, on the other hand, deep in his inner heart, a practitioner feel that he may possibly get away with it in most cases but that, in the event of unexpected complications, he would be unable to proceed *lege artis*, that man is not a surgeon. He may be able to make incisions, since human flesh yields even to the knife of a criminal, he may even know how to control a hemorrhage and how to cover up his fruitless

job; still, that man knows that it was the fee or the opportunity for practice that tempted him to take a chance, and he also knows that he is not a surgeon.

It may be cited that no less a surgeon than Billroth is said to have complained that a surgeon's success leads over heaps of corpses. If Billroth has actually said that, he was—Billroth, who could indulge in self-criticism. For, he was a pathfinder, a pioneer, at a time when modern surgery still was in its infancy.

Today, matters stand differently. Operations like the removal of a tumor from the brain, hysterectomy, nephrectomy which, but a few years ago, would have caused our predecessors to look upon the venture as attempted sacrilege are today every-day occurrences. None the less, because a number of men perform them without difficulty, is no reason to assume that any physician can do the same operations as they should be carried out without fitting himself for it by painstaking study.

The argument that the great surgeons, too, must have made a beginning and that practice and skill are not matters of inheritance, holds good no longer. Surgery can be acquired in other, less objectionable ways than to utilize the misfortunes of others for one's own perfection.

It seems to us that the medical man who deliberately chooses the career of a surgeon should think a good deal; should realize that the road leading to success is a thorny one; that, even when the pinnacle of fame has been achieved, the remuneration remains chimerical and that, to maintain the top rung of the professional ladder, one must abandon the ordinary pleasures of life, must bring many sacrifices in time, labor and money; that, after all, the sole reward is, the conscientiousness of a life well spent and perhaps a few years of philosophic repose in old age.

To become a real surgeon, then, one must prefer the goddess of science to the golden calf. One must sacrifice worldly ambitions to ideals. Only when one feels that he can bring these sacrifices, should he choose the career of a self-sacrificing priest of the religion of humanity.

Anything less than that is a delusion, resulting in disappointment, failure!

For, if one seeks fame and fortune, there are other fields of endeavor, less heart-rending, less anxiety-causing, more remunerative in material goods.

He who has not experienced the bitterness and humiliation of being denounced because an otherwise technically perfect operation resulted in death from embolism has not seen the shadow side of a surgical career. He who has not heard the bitter criticisms by Mrs. Grundy and Co. because a hernia recurred in spite of a faultless operation, has not tested the bitter cup of man's ingratitude. What man is there so callous as not to care what is said about his individuality?

True, surgery can not and will not change the savagery, superstition and ignorance of the masses, but, it is the masses that we are thrown in contact with and one must be philosopher indeed to look upon them with equanimity.

Once we have considered all this, have mentally prepared ourselves for what may be in store for us, and have learned to steer the ship against all hurricanes, we can enter our kingdom as autocrats who bow to no one except their own conscience. The real surgeon will allow nothing, not even his own desires, to master him. He will always be a Priest who considers the fate of those who appeal to him for aid. Shall he invoke in the problematic cases (commonly designated as borderline cases) the aid of the knife or shall he allow the internist to try his measures? Though volumes have been written on this one subject, after all each case is up to him for a fateful decision and he must consult the godhood in his soul as the only oracle worth listening to.

This is not simple ethics. This is the divine right and privilege of the real surgeon.

Blessed is he who has found his work: let him ask no other blessedness; he has a life purpose. Labor is life. From the heart of the worker rises the celestial force, breathed into him by Almighty God, awakening him to all nobleness, to all knowledge.—Thomas Carlyle: "Work."

CONCERNING SOME FUTURE ISSUES OF "CLINICAL MEDICINE"

With a good many medical journals, it is a custom to publish from time to time special numbers that are devoted more or less exclusively to special subjects and that, if all goes well, contain virtually a résumé of the knowledge we possess concerning the particular problems under discussion. While

Clinical Medicine has in the past published special numbers, it has never seemed advisable to adhere to such limited programs exclusively. We have believed it better to get up our consecutive issues in such a manner as to pay particular attention, in certain numbers, to certain interesting problems while giving space to other discussions as well.

In view of the fact that our numerous subscribers have many wishes and requirements, this seems to be the most reasonable and the most equitable mode of procedure.

Nevertheless, some sort of a program must of necessity be outlined, and adhered to as much as possible, if the getting up of the succeeding issues of the Journal is not to be a haphazard, happy-go-lucky affair. Consequently, we have sketched a program for the next few issues of Clinical Medicine that we desire to submit for the information of our subscribers. This is done for several reasons, the principal one being that we should like many of our subscribers to contribute articles, correspondences, comments for the various issues as they are devoted to medical problems in which our readers are personally interested.

The next issue of Clinical Medicine, that for December, will logically be given up to the discussion of winter diseases and, by easy transition, to infectious diseases in general. Thus, we hope to publish articles on the treatment of "cold," pneumonia, influenza and other affections that are more frequently encountered during the winter months. However, we can usefully consider communications on other infectious diseases such as typhoid fever, diphtheria, the children's diseases, so called, and others. The treatment of carbuncle, incidentally, should present one advantageous topic for discussion.

In this issue of Clinical Medicine, the question of focal infection might be dealt with, although that probably might come in well with other diseases due to toxemia, systemic intoxication being so frequently due to bacterial infection, although it is many times of intestinal origin.

While it is to be hoped that the contributions to the December number will be so numerous as to provide material for the January (1922) issue also, in that number we are planning further to discuss, in addition to diseases of toxemia, both intestinal and bacterial, also diseases of metabolism, including renal diseases, liver affections, and so forth.

In February, the socalled "blood" diseases, or the constitutional diseases, will follow logically. They may include heart affections and diseases of the circulatory organs, such as the anemias; then, more especially cancer and diabetes.

For March, we are planning to print several special articles on the subject of endocrinology. It is to be noted, however, that studies in endocrinology have become a constant feature of Clinical Medicine and that at least one article on that subject appears in every single issue. For March, we hope to secure several instructive and practical contributions. Our subscribers are invited to contribute reports on their experiences and observations with this interesting and promising form of biologic therapy.

For April, papers on skin diseases and on venereal diseases will provide a field for useful discussion. The papers on venereal diseases are to be inclusive, and it is hoped that not only syphilis, gonorrhea and chancre will be discussed but also the so-called fourth venereal disease.

For May next, we are planning another food number in which the vitamines and the deficiency diseases (pellagra, scurvy, etc.) will receive particular attention. The problem of infant feeding also will be considered.

In the June issue, there will be an excellent opportunity for publishing articles on physiotherapy, including electrotherapeutics in all its branches as well as radiology and mechanotherapy.

It will be noted that many topics that might provide material for special discussion have been omitted. We have not planned for special numbers on nervous and mental diseases nor have we reserved any space for surgical and obstetrical papers and for papers on the specialties. In conformity with our earlier remark, that our special numbers, so called, are never exclusive, it will be clear that contributions on topics not mentioned in this outline will nevertheless, receive consideration.

We believe that the program that we have indicated in the foregoing will provide material for much advantageous study. We wish to remind our readers that they themselves are the logical contributors to the reading pages of Clinical Medicine. We

desire to urge all of them to pick out topics that they would like to cover and to communicate with us regarding contributions that they are desirous or willing to make.

I never could believe that a man who did not find God in other places as well as in the Bible [illegible] found Him there at all.—George MacDonald: "Annals of a Quiet Neighborhood."

THE TUBERCULOSIS CHRISTMAS SEAL SALE

While the Tuberculosis Christmas Seal Sale, last year, was a great success and the money derived from it has been helpful in saving thousands of lives, it is hoped that this year's campaign may produce even bigger results so as to meet the rapidly increasing needs of the tuberculosis campaign during the year 1922.

The National Tuberculosis Association is now making plans for the Christmas Seal Sale of this year. Several communications, both in the reading pages and in the advertising department of this issue of CLINICAL MEDICINE, have reference to this work. It is to be hoped that physicians throughout the country will interest themselves in this campaign and will take active part in fostering the propaganda in behalf of the great undertaking that is successfully delimiting and circumscribing the ravages of tuberculosis disease. Physicians can be very influential factors in this matter, not only by purchasing Christmas Seal Stamps for their own use but also by encouraging their friends and their clients to do so. The work is now so well known and its necessity as well as its utility are so fully understood that we apprehend no difficulty whatever.

Our best wishes.

THE FIFTH ANNUAL ROLL CALL OF THE RED CROSS

The American Red Cross will hold its Fifth Annual Roll Call on November 11 to 24 of this year. This is the annual period during which those who are already members of the Red Cross are asked to renew their memberships in the association; and when those who are not members are asked to join. It is hoped sincerely that the present members will, without exception, renew their membership by paying their annual contribution and that they will induce their friends to join this remarkable association which can look back upon such splendid years of service. The continued cooperation of all members and the accretion of many new members is urgently required for maintaining and continuing the work of the American Red Cross.

In another department of this issue of CLINICAL MEDICINE, there appear two articles dealing with the work of the Red Cross in behalf of our ex-service men. The work of caring for these ex-service men is not altogether a government function. It is truly a national business. It is with entire justice that the government has delegated a considerable portion of the task to the American Red Cross. This is described

I am the Red Cross of Peace —
I heal the wounds of war —
I am a refuge from fire, flood and pestilence —
The love of little children is mine —
I am the Red Cross of Peace —
American Red Cross
"In the service of those who suffer"

in one of the articles referred to and this same article shows how and why the Red Cross is in need of popular and public assistance.

Let's get back of the Red Cross and push —push with the annual dollar-membership renewal or with five dollars or with ten dollars.

We believe that it is worth any man's five or ten dollars to know that some of the work, that is his by right of his citizenship in the United States, is accomplished in his behalf by the American Red Cross. If every self-supporting citizen of this country, man or woman, would help in the

work of the Red Cross with five dollars, or even with one dollar, it is easy to figure out how large a fund would be collected and placed at the disposal of the Red Cross. It can easily be realized how much the Red Cross would be aided in the essential work that it is accomplishing.

THE NATIONAL TUBERCULOSIS ASSOCIATION AND "THE AMERICAN REVIEW OF TUBERCULOSIS"

Because, before the war, the tuberculosis mortality had been on the decrease in nearly all civilized countries, and particularly in our own, it is a permissible conclusion that its present increase throughout Europe, and to some extent also in our own country, is to be charged to the war. In Central Europe, the situation is said to be appalling, and efforts are made to secure funds for the purpose of dealing with that phase of the European post-war problem.

However, it is not to be forgotten that, here in our own country, we also have a tuberculosis problem to the solution of which we must devote our energies. In the United States, it is perhaps not so much malnutrition and want of proper clothing as it is the congestion resulting from lack of housing facilities in our large cities that is responsible for the increase of tuberculosis. Total ignorance of sanitary regulations among a large class of the population in the congested districts adds to the spread of the disease. Aside from this, the problem of unemployment in an unprecedented degree is confronting us.

The various phases of the antituberculosis campaign are being approached, under the leadership of the National Tuberculosis Association, by the State Tuberculosis Societies and their county and municipal subsidiary organizations. The National Association coordinates all the state and local associations and other agencies in the great fight against tuberculosis. It conducts a publicity bureau and several traveling exhibits. It publishes a sanatorium directory, promotes needed federal legislation and health programs and standardizes, as much as possible, all forms of antituberculosis work. The National Tuberculosis Association publishes one of the leading publications devoted to the study and prevention of tuberculosis, namely the *American Review of Tuberculosis*. It also publishes a popular journal, the *Journal of the Outdoor Life* and a *Monthly Bulletin* in addition to the annual *Transactions*.

Any reputable physician in good medical standing and any layman honestly interested in the control of tuberculosis and who is not engaged in an enterprise foreign to the ideals of the association is welcomed to membership. The dues are five dollars a year. Members of the association are entitled to receive a number of valuable publications, including the *Journal of the Outdoor Life*, a monthly magazine and the official organ of the association; the *Monthly Bulletin* of the association, and various other interesting and instructive publications which are issued from time to time, such as *Transactions, Tuberculosis Directory*, and various special volumes and studies. Members are also entitled to receive the *American Review of Tuberculosis* at the reduced price of two dollars a year.

The *American Review of Tuberculosis* is now in its fifth volume. It is being conducted by some of the most prominent tuberculosis physicians in the country and counts among its contributors numerous men who have done most useful work in the study of the tuberculosis problem.

The *American Review of Tuberculosis* is not only indispensable to the specialist and student in tuberculosis but it is equally so for the general practitioner who must needs keep informed on the multiplicity of tuberculosis subjects if he desires to do his duty to his tuberculous patients and to himself. We have no hesitation in urging the general practitioners of the country, as well as specialists and intelligent public-spirited laymen and laywomen, to join the National Tuberculosis Association and, no less, to subscribe for the *American Review of Tuberculosis*.

"I wish I had your chances," said a poor man to a rich friend. "Why! I picked them up after you had passed them by," answered the friend. E. Scott O'Connor: "Tracings."

THE AMERICANIZATION OF AMERICANS

In another department of this issue of CLINICAL MEDICINE, on page 795, there appears a contribution under the caption of "Caney Creek Community Center," which we urge most earnestly to the attention of our readers. We betray no confidence if we say that this letter was communicated to

us by Mrs. Alice Spencer Geddes Lloyd, who is the founder of Caney Creek Community Center. The story of how this Community Center came into existence is told, simply and forcefully, by John Caudill, "A native of Caney Creek, who, by his own exertion, became a lawyer. He is also editor of *The Beacon Light* of Knott County, the only newspaper published in that county." The little pamphlet, in which Mr. Caudill relates the story of the community work in Knott County, Kentucky, was printed by the boys and girls who are training at the Caney Creek Community Center and can, undoubtedly, be obtained on request. We suggest that such requests be accompanied by small donations, to pay at least for printing and postage. The post office is Pippapass, Kentucky.

Mrs. Lloyd is very anxious to obtain help for that earnest mountaineer county officer, Doctor Duke, in his efforts to secure the nursing unit that will save hundreds of children's lives. She says:

"I wonder where we could secure, for the above-mentioned doctor, the most promising list of U. S. A. physicians to whom to appeal for five dollars each toward the Nursing Unit? Have you any suggestions? He needs to raise only $4,000, because he has the pledge of the Fiscal Court for $1,000, making the $5,000 required. When a county raises $5,000, the state appropriates another $5,000, which makes the $10,000 that will support the unit for one year. In that time, every school child will be examined and remedial clinics held—at least that much is certain to be accomplished. This will mean, trachoma ceasing, and hookworm, and adenoids, as well as a good deal of minor work with teeth and tonsils. These things are more needed here than anywhere in the world that I know of. Not only is serious disease now being spread by diseased children in school; but blindness and other ills are being produced among children that, naturally, are abnormally keen, mentally.

"We have raised, from Harvard men, enough money to keep one mountain child in residence for one year, under "The Harvard Scholarship Fund."

It occurs to us that "the most promising lists of U. S. A. physicians" would be, the "CLINIC Family." We believe that we do not need to say much in support of this beautiful work among the mountaineers of Kentucky and Tennessee, that has for its aim: "The Americanization of Americans of American birth, by Americans." These people, of original American settlers' stock, were isolated in their mountain fastnesses for so many decades, owing to geographical and other factors, that they have lost touch almost entirely with the outer world. Of sturdy, upright honesty, of deep religious faith, of proud independence, they yet realize their helplessness—without assistance. They do not ask for assistance in the usual meaning of the word. They do ask it, though, so as to be enabled to help themselves. The material is there, if it could but be developed by education; for the making of Americans that would easily rank among the best in our great country. Are we going to help them help themselves?

Now, we believe that it would be a splendid undertaking if a "CLINICAL MEDICINE Scholarship Fund" could be created, or if the "CLINIC Family" could undertake to raise a goodly portion of that sum of $4,000 that our colleague, Doctor Duke, needs so urgently to carry on his much-needed work. Remember, Doctor Duke serves as health officer of the county without pay. Can not we help him in his work? CLINICAL MEDICINE stands ready to head the subscription list; so is the present editorial writer for himself, personally. So are his colleagues of the editorial staff. How many of our subscribers will help? Let's consider the great needs of our brothers, their wives and children, in our own country. We know, that it is up to us to aid the poor and the suffering in Europe and in Asia. Yet, surely, our own may properly be granted the first right. Let us help them, say, with five dollars each. How many five-dollar checks can we collect?

Please send us your contributions plainly marked: "Caney Creek Community Center," unless you prefer to send them direct. In that event, please inform us of the fact. We are anxious to know just what the "CLINIC Family" is going to do in this work.

Men love a woman because she happens to possess the qualities that they admire; women admire certain qualities because the men they love happen to possess them.—Ellen Thorycroft Fowler: "A Double Thread."

STATE MEDICINE

The *Official Bulletin of the Chicago Medical Society* (Sept.) reproduces an editorial from the *Dearborn Independent* which is interesting and, we confess, surprising to us, considering the source from which it emanates. The objections to state-medicine are well taken and our subscrib-

ers can get material for argument against such boneheaded legislation. The editorial follows:

"State ownership and control is perfectly sound in theory, and has proved itself wholly unsound in practice. There may be countries in the world where it is safe to trust the control of vital interests to the group of men who comprise the governments; it has not always been safe in this country, as years of experience prove. The revelations of official incompetency, and not so much incompetency as dishonesty, during the recent war period, will effectually modify any theoretical appeal which the idea of state control may have.

"But, that there are influences in this country which are bent on bringing all the people's affairs under official scrutiny, is most apparent from the efforts now being made to create a sentiment in favor of 'state medicine.' This means simply: more jobs, no privacy, curtailment of freedom, the destruction of the medical profession by the discouragement of research work, and the coarsening of delicate intimacies. It means practically that, what the United States Shipping Board did to the shipping situation of the country, 'state medicine' would be permitted to do to the people's health.

"The most astonishing feature of this propaganda is the assumption that the proposal could be made attractive to the American people. Most cities have city physicians now, and most counties have county physicians, and no one rests under any doubt of the quality of the services rendered. The public has had a wide experience in going to its officials for sufficient water, heat, light, school facilities, transportation service, and sufficient difficulty in getting any kind of service at all at any reasonable tax rate, to prevent its falling in love with the idea of going to its officials for medicine when it is sick. Practically, it will not work; the genius of the American people is against it.

"Between family physicians and families there is a confidential relation which rests on choice and experience. It is not official. It is not altogether professional. It partakes of the confessional in large degree, and constitutes a friendly past based on the experiences of many fights with disease and death. So well recognized is this that the family physician has become a fixed figure in our lives, and with results of undoubted good, as the records generally show.

"To change all this and establish a police health station, as it were, at which citizens must apply for medical aid and await the pleasure of an official doctor who is paid anyway and whose professional career does not depend on the confidence he is able to evoke by skilled and loyal service, is, to suggest something which is so alien to our Americanism as almost to prove an alien course and an alien purpose.

"With the growing predilection of a certain group for medicine and surgery, and with that group's constant predilection for securing control of the intimate sources of the people's confidence and strength, there is no doubt whatever as to what complexion 'state medicine' would take if it were adopted.

"These are times when, more than at any previous period, the American people must be on guard against ideas that are not American. The time has come for the exercise of a wholesome defensive suspicion about many things that outwardly are made to appear desirable but inwardly conceal dangers to our fundamental traditions and liberty. And we are never more justified in our suspicions of alien influences for an alien purpose than when we see attempts made to 'regiment' the American people or their private affairs."

The argument of the *Dearborn Independent* would seem to be unanswerable. Yet, we dare not hope that this argument, any more than numerous others that have been advanced in medical and other journals, will have sufficient weight to lead to a general protest against this invidious and dangerous innovation. The fact that it is opposed to American national feeling and custom should carry weight. Will it? We are afraid, not. There seems to be a serious epidemic of foreign legislative tendencies which, appealing to the self-interest and the pocket-book of job-hunters, can secure energetic support. Sometimes, we feel pessimistic. Like Mr. Mantalini, we fear that the country is going straight to the demnition bowows. And, yet, we can not believe that good sense, keenness of perception, the sense of what is fitting can have been lost so absolutely as to make possible retrograde legislation. We still are hoping for the best, confident that, ultimately, right and truth will prevail.

There may be nothing new under and including the sun; but it looks fresh every morning, and we rise with it to toil, hope, scheme, laugh, struggle, love, suffer, until the night comes and quiet.—William Makepeace Thackeray: "The Newcomes."

THE ROLE OF THE TONSILS IN TUBERCULOSIS

An unusually extensive study entailing routine histologic examinations of 8,697 tonsils, removed by operation in the University Hospitals, Ann Arbor, Michigan, has afforded opportunities for investigating the importance of the tonsil as also the frequency with which this organ is itself involved by a tuberculous process.

Dr. Carl Vernon Weller (*Arch. Int.*

Med., June) deals in his report with the total incidence of tonsil tuberculosis as also with the effect on the incidence of the character of the population from which the cases are drawn; further, the incidence in various age groups and as to sex.

Histopathological tuberculosis of the tonsil is discussed and is shown to fall under three different types.

The incidence of active tonsil tuberculosis in a series of 8,697 tonsils studied was found to be 2.35 percent; it being pointed out that this figure might have been increased slightly if it had been possible to examine every single portion of each tonsil. While, thus, tuberculosis occurs in but a small percentage of the tonsils examined, as compared to the various chronic inflammatory manifestations, hyperplasias and metaplasias, which are present in varying degrees in all tonsils, regardless of the clinical history, its occurrence is of sufficient frequence to constitute one of the chief reasons for continuing the labor involved in the routine histological examination of all tonsils received. It greatly outranks the other chronic infective granulomas; recognizable syphilitic lesions being next in order, but by no means as frequent, while actinomycosis of the tonsil ranks third in this group, although met with only very rarely.

In 204 cases of tonsil tuberculosis involved, the range of age was from two to fifty-nine years, the female sex being slightly more represented than the male. As to the incidence in various age groups, that depended largely on the character of the population from which the material was derived. The incidence of tonsil tuberculosis was particularly high in institutions for the care of children, also among medical students, internes and nurses.

Pathologically, the three types of tonsil tuberculosis found were, focal crypt infection; ulcerative, lupus-like lesions; and diffuse miliary tuberculosis. The first of these, the focal crypt infection, was the most common type. It was usually unilateral, involving one or more crypt areas only and avoiding the lymph follicles. While some of the cases undoubtedly were referable to autoinfection from open tuberculosis in the respiratory tract, the majority must be considered as cases of primary focal tonsil tuberculosis.

While the author does not attempt to discuss the relationship of tonsillar to cervical-gland and pulmonary tuberculosis, he finds that, in many instances, cervical nodes were examined histologically after the tonsils had been found to be tuberculous. In some of them, the cervical nodes also proved to be tuberculous. In other cases, extensive tonsillar tuberculosis was unaccompanied by cervical-gland lesions. On the other hand, even more frequently, the tonsils failed to show lesions in patients with extensive disease of the cervical nodes. While undoubtedly the tonsil must be considered as the most important portal of entrance in cervical-gland tuberculosis, it is not invariably implicated, itself, in the process.

The very self-evident question as to the advisability of tonsillectomy is considered by Doctor Weller from the pathologist's standpoint negatively. That is to say, an incidence of active tonsillar tuberculosis of somewhat more than 2.35 percent would not in itself be considered an argument for tonsillectomy. Nevertheless, it seems advisable to remove the tonsils in cases of known cervical-nodes tuberculosis or pulmonary tuberculosis in the hope of removing an active focus of dissemination.

This last conclusion does not appeal to us as logical. If the cervical nodes or portions of the lungs are known to be tuberculous, the removal of the tonsils "in the hope of removing an active focus of dissemination" is somewhat in the nature of closing the barn door too late. Moreover, operations on the tonsils, and elsewhere on head and neck, in persons affected with active tuberculosis are to be undertaken with hesitation because of the great liability to prompt and active dissemination. As far as the danger from tuberculosis is concerned with reference to the tonsil, the present writer believes that the part of wisdom lies in conservatism.

It is a fair, even-handed, noble adjustment of things that, while there is infection in disease and sorrow, there is nothing in the world so irresistibly contagious as laughter and good-humor.—Charles Dickens, "A Christmas Carol."

PREGNANCY AND TUBERCULOSIS

It has long been realized by medical observers that women very often pay a heavier toll to tuberculosis than do men, for the reason that, during the years of propaga-

tion, the resisting powers of tuberculous women are strained to the utmost as pregnancy occurs. This statement must be accepted as based on fact, even though, in many regions, the proportion of males dying from tuberculosis is greater than that of females. We believe that, where this latter condition obtained, it is due to particularly unfavorable conditions relating to the work and the environment of the male tuberculous patients.

Regarding the influence of pregnancy upon the tuberculosis in women, it is well to recall the possible dangers to our minds. J. H. Elliott, of Toronto, summarizes his investigations concerning this problem, in the *Canadian Practitioner and Review* (Aug. 1920), in these rules, namely:

1. Tuberculosis of the lung exerts practically no influence against conception.

2. It seems to exert little influence on the course of pregnancy, and, unless the patient is in a far advanced stage of the disease, has little or no tendency to cause abortion, miscarriage or premature labor.

3. Pregnancy may prove a dangerous complication in tuberculosis of the lung, especially if the disease be active.

4. A woman with active tubercle of the lung should not marry.

5. A tuberculous woman should not become pregnant unless her lesion is limited and active signs have been absent for at least two years.

6. There are no rules that we can follow which will aid us to determine with certainty which cases will bear the added strain of pregnancy well and which badly. It is equally difficult to determine in what cases an abortion will improve the future prospect of the pregnant woman. As in all forms of treatment of tuberculosis, we must individualize; all mere rules fail.

7. Intervention after the fifth month rarely gives satisfactory results. Prior to the fourth month, it is possible that the mother's future may be improved by emptying the uterus through the modern operation of vaginal hysterotomy under gas and ether anesthesia; that is, by avoiding shock due to a prolonged operation or ordinary anesthesia or loss of blood.

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8. Labor should be made as easy as possible. The induction of premature labor two weeks before term may be advisable.

9. The tuberculous mother must not nurse her child.

10. The ordinary hygienic and dietetic treatment of tuberculosis must be strictly observed during pregnancy and the puerperium and for at least six weeks after all evidence of pulmonary activity has subsided. The obstetrician and the internist should work in closest cooperation.

11. A pregnant woman giving a history at all suggestive of pulmonary tuberculosis should be subjected to a thorough examination by a competent internist at the earliest possible date. Only in this way can the proper treatment be instituted at the time when it is most valuable.

Leading Articles

Tuberculosis and Genius

By JAMES G. KIERNAN, M, D., Chicago, Illinois

Fellow Chicago Academy of Medicine; Foreign Associate Member French Medical Psychologic Association; Honorary Member Chicago Neurologic Association, Formerly Assistant Physician Manhattan (Ward's Island) State Hospital and formerly Superintendent Chicago (Dunning) State Hospital.

EDITORIAL COMMENT.—The relations between tuberculosis and genius have engaged the attention of several authors, notably in France, during the last two decades or so. Some have held that genius was a pathological phenomenon due to intoxication with tubercle bacillus poisons. We believe that Doctor Kiernan's conclusions are closer to the facts.

"INSANITY and genius stand on either side of consumption," remarks Miss Robinson, "its worse and better angels. Let not one call it impious or absurd to rank the greatest gift to mankind as the occasional result of an inherited tendency to tuberculosis disease. There are, of course, very many other determining causes. Yet, it is certain that inherited scrofula or phthisis may come out not only in these diseases but in an alteration for better or worse of the condition of the mind." This fairly represents the supposed tuberculous constitutional factor. C. B. Reed has, however, alleged a toxin-creative factor from tuberculosis in genius.

Etiology has four factors: The congenital factor; the state of the constitution at the time of occurrence of the thing caused; the influence of the direct cause, which may occur with or without the other two factors; finally, the factor which does not cause but modifies the existing condition. The influence of tuberculosis on genius is identical with the general mental influence of tuberculosis. This, as a rule, is due to the influence of tuberculotoxins, not to organic changes. The best known mental symptom of tuberculosis is the *Spes phthisica,* or hopefulness of consumptives. With this hopefulness, is associated an equally common but less recognized mental phenomenon, the emotional mobility which underlies the *Spes phthisica.*

Clouston observed, in tuberculosis patients, symptoms which indicated approaching death from phthisis. If these cases had been acute, the acute stage was of short duration and passed into an irritable, sullen and suspicious state. There was a want of fixity of purpose in the mental condition. The intellect was at first, not so much obscured as that there was a great disinclination to exert it. There are occasionally unaccountable little attacks of excitement, lasting only for a short time, unprovoked paroxysms of irritability and passion in a subdued form. There was a disinclination to enter into amusement or continuous work. If this were overcome, interest was not manifested in the employment. Suspicion is the great characteristic of these patients. This mental state often begins insidiously and shows itself in an alteration of conduct and affections, an increased irritability and waywardness. There are fitful flashes of intellectual brightness.

There occurred, according to Schroeder Van der Kolk, an alternation between the psychic symptoms and the physical. The mental symptoms are most marked when the physical ones are latent. Cough, expectoration, dyspnea are replaced by emotional exaltation.

"There is," remarks Leonard Weber, "a special mental state associated with tuber-

*Read before the Chicago Academy of Medicine, Oct. 20. 1920.

culosis. Frequently it consists of a peculiarly cheerful hopefulness, *Spes phthisica*, which seems strangely out of harmony with the inevitable signs of the advancing fatal disease by which it is accompanied. There is also mental depression. The peculiar hopefulness is most frequently met with in acute phthisis. It is often so irrational and persistent as to amount to an insane delusion growing in strength despite the accumulating evidence of its baselessness. In the last stage of such cases, religious and emotional exaltation is often extreme. In many cases of chronic type, where the disease is latent, the mental symptoms precede the physical. Languor and depression mingled with waywardness are characteristic of the initial stage. Where the mind is much affected, the ordinary physical symptoms, cough, expectoration and dyspnea are absent. The tendency to be suspicious characterizes these cases."

The most prominent and decided symptom, which appear in what may be called the pretuberculosis stage of phthisis is suspicion.

In the opinion of E. C. Spitzka, phthisis is sometimes marked by mental disorder, usually, in the way of alternating depression, emotional mobility, petulance, intensification of the egocentricity common to invalids, and accusatory delirium. Sometimes, unsystematized delusions of grandeur are found at the height of the disease.

Three Types of Tuberculous Children

According to De Giovanni, there are three types of tuberculous children; the "torpid," the nervously fussy or erethistic type, and the energetic. The torpid type is usually coarse-featured and coarse-skinned with peculiarly unstable mentality; slowness of comprehension is combined with power of continuity of thought. At times, mental apathy alternates with quickness of perception. Decided exaggeration of the lymphatic system with deficient function exists. The erethistic type is generally characterized by a clear complexion, a fine skin, features well cut and often beautiful. The lips are red, the teeth pearly, though liable to early decay. The eyes are large and full, the pupil widely dilated, the white of the eye beautifully clear. The eye lashes are long, curved and silky. The blue veins show distinctly through the thin white skin. The bones are light, the hands and feet well formed, the stature is often tall and the whole figure slightly and gracefully built. The erethistic usually remain spare. They are vivacious and excitable and the intellectual faculties are often highly developed. Wanting in stamina, they are incapable of prolonged exertion either of mind or body and break down under conditions which would not prove injurious to the healthy. They are continually "taking cold," which is an expression of toxin poisoning.

The torpid type is usually called scrofulous. Dr. Samuel Johnson was a victim of it. To "torpid tuberculosis" were due his obsessions, his apathy, his irregular irritability, and that part of his apathy which he called "slothfulness." Behind these defects, he had a clear but not deep intellect. If there ever was a mentality marred by torpid tuberculosis, it was that of Samuel Johnson.

The Influence of Tuberculosis on Keat's Mentality

Prominent among the men of genius in whom mental evidences of the influence of tuberculosis appear are Keats, Lanier, Francis Thompson, and Stevenson.

The evidences of tuberculosis are so highly developed in Keats that Rossetti, a late biographer, is continually puzzled by them. The father of Keats was a stableman of bookish tastes. He seems to have been an innate gentleman, for his marriage to his master's daughter left him unassuming and manly. This daughter, who was the mother of Keats, was pleasure seeking, yet saturnine. She displayed the same emotional mobility that marked her gifted son, together with his suspicional tendencies. She died of phthisis, complicated by rheumatism, when Keats was fifteen. The poet, who was her first child, was born seven months after her marriage. It would seem that this was a premature birth.

The artist Haydon states that the poet, when a child, was violent and unmanageable. When he was five years old, he obtained a naked sword and declared that no one should leave the room. When his mother attempted to leave the room, he threatened her so furiously that she began to cry. She was obliged to wait until a man who saw her through a window came to her rescue.

Keats' father, at the age of 36, was killed by a horse. His mother remarried a year

after, when Keats was ten. She separated from her second husband and went to live with her mother. Keats then had a guardian. Keats was the oldest of five children. He was irascible, suspicious and pugnacious in his childhood. These states alternated with fits of emotional mobility and suspicional tenderness. During his mother's last illness, he nursed her with great and loving tenderness.

Mordell remarks upon this thus: "The Edipus complex was strong in the poet. He was not only deprived of his mother early but witnessed her marry a second time. This revived the babyish jealousy of his father and made him hate the new husband. He looked for a substitute for the lost mother and found her in Fanny Brawne and then he learned what grief was." This is a series of pure assumptions which it was necessary to establish to conform with Freudian symbolism.

Keats Studied Medicine

To physicians, the fact is of peculiar interest that Keats, at the age of fifteen, was apprenticed to a surgeon named Hammond. Five years after, he passed his final examination at Apothecary's Hall with great credit. In 1816, he became an interne at Guy's Hospital.

He went to Oxford, where he indulged in promiscuity and contracted a chancre in 1817. He was treated rather vigorously with mercury and the secondary symptoms did not appear. There is a possibility, however, that tertiary changes underlay the first demonstrable symptoms of phthisis, in 1818. In 1817, he met Coleridge who predicted his early death. He left Scotland and abandoned his habit of pedestrian tours, partly because of the premonitory symptoms of phthisis, partly because of the approaching death of his brother Tom from phthisis. Tom, like the poet, had been an irritable, querulous and suspicious youth. The elder brother, George, who was pacific yet resolved, long survived the poet. The sister, who resembled George, died at the age of eighty-six.

In September, 1818, Giffard's famous critique of "Endymion" appeared in the "Quarterly Review." Giffard was a fanatic, philistinish devotee of the mechanical school of poetry founded by Pope. That "Endymion," the criticized poem, deserved a critical analysis, is evident from Shelley's remarks: "I have read Keats' poem. Much praise is due to me for having read it; the author's intention appearing to be that no person should possibly get to the end of it." Giffard's onslaught, while somewhat merited, had altogether too much of the slapdash abusive style. The "Quarterly" critique had been preceded by a scurrilous attack on Keats in "Blackwood's" written by Lockhart, Sir Walter Scott's son-in-law. It was characterized by elephantinely jocose satire. The fact that Keats was "Johnny Keats, an apothecary's assistant," was the high and mighty reason assigned for shutting him out of Parnassus.

Shelley states, from hearsay, however, that Keats was driven by the "Quarterly" critique into a state bordering on insanity which produced the first hemoptysis. The first hemoptysis did not, however, occur for more than a year after. Haydon says. "The effect on Keats was melancholy. He became morbid and silent; would call and sit, whilst I was painting, for hours without speaking a word." Keats had had such attacks of moody, suspicional taciturnity before. In the preface to "Endymion," flayed so mercilessly by Giffard, Keats anticipates a "hell of criticism." This being the case, the effects of criticism must have been somewhat discounted by Keats.

Many of the circumstances attendant on the first hemoptysis were opposed to Shelley's opinion. Soon after the attack, Keats is said to have been addicted excessively to claret, cayenne and laudanum. All, however, were so soon abandoned that they would appear to have been parts of some medicinal treatment tried by Keats.

Shelley takes the view, in the elegy "Adonais", that the critique killed Keats. Byron takes the same view in his

> "Who killed poor Keats?
> I, said the 'Quarterly'
> Savage and tartarly,
> I killed poor Keats."

The various brief attacks of irascibility described by his biographers from time to time, taken in conjunction with the physical symptoms, must convince any rational mind of the justness of Richardson's view that Keats' death was due to phthisis attacking a frame predisposed by inheritance to its ravages. Keats' younger brother, Tom, who bore such a mental and physical resemblance to him, died early of phthisis.

The Moody Suspicional Stage

In 1820, Keats became noted for his moody taciturnity alternating with a sus-

picion which at times amounted almost to panphobia. He became misanthropic. The companionship of friends was tedious. He bewails from time to time his increasing lack of fixity of purpose; one of his earliest defects. The first hemoptysis had been preceded by pulmonary symptoms dating from the visit to Scotland. It occurred a little over a year after the "Quarterly" critique on "Endymion", which, to judge from Keats' letters, does not seem to have left a decided moral impression on him. He did not exhibit more than the usual querulous irritability common to his moods. A year later, however, one evening, near midnight, Keats, according to Lord Houghton, returned home in "a state of strange physical excitement which, to those who did not know him, would appear to be one of fierce intoxication." He had been chilled through on the outside of a stage-coach. Soon after his return, he spat up blood for the first time. His second hemoptysis occurred the following June. Thereafter, Keats was so irritable, querulous and suspicious that the accidental tearing of a letter by one of Leigh Hunt's children caused such an impassioned outburst that he left Leigh Hunt's home despite all apologies and remonstrances. The "fierce" condition of "physical excitement," which Lord Houghton likens to intoxication and which seems to have been reported to Shelley as allied to insanity, was clearly an attack of emotional exaltation accompanied with irritability such as have been already described by Clouston and Weber as among the mental symptoms of tuberculosis. Rossetti is puzzled by the appearance of the "physical excitement resembling fierce intoxication" at the time of the hemoptysis, but such a mental symptom is a far from infrequent precedent to hemoptysis which it no doubt often provokes. A singularly pat illustration of the emotional exaltation attendant on the first hemoptysis is to be found in the jaunty satire on George IV, written by Keats at this time, whose jocose tone, under the circumstances, puzzled Rossetti.

The following August, the *Spes phthisica* made its appearance. Keats, who had pronounced his own death warrant, began to doubt his diagnosis and believed his recovery certain.

Keats and Fanny Brawne

His love letters to Fanny Brawne written precedent to the critique are, to quote Rossetti, unbalanced, wayward and profuse; full of suspicion from the outset, which is at first directed toward his friends and finally to his adored herself. Keats was well aware of this peculiarity of his, for he says: "You have all your life believed everybody, I have always suspected everybody. The influence of Fanny Brawne was not free from evil. She seems to have been a verbally lascivious, psycholagnic woman, "a cold, vain, interested coquette, who perfectly understood how much the influence of her charms was increased by a severity which cost her nothing, who could flirt with her admirers in the just confidence that no flame she might kindle would thaw her own ice."

Of this Keats-Brawne correspondence, Edgar Lee Masters says: "Fanny Brawne, to whom this agonized letter of Keats was written, wrote to a Mr. Dilke ten years after Keats' death, in regard to a memoir proposed to the dead poet, in the following unconcerned and ignorant way: 'The kindest act would be, to let him rest forever in the obscurity to which circumstances have condemned him.' No remembrance here for Keats' devotion, no thrill that a human heart, even if it had been the heart of an ordinary man, had poured out his last devotion to her; no pity for his obscurity, if it were such, his untimely and tragic death; no recognition of his passion for beauty including his misguided passion for the beauty which was not in her; no perception of the goodness in the man, the bravery of his heart; the white fire of his spirit; no understanding of his greatness, even after Byron had written that: 'Hyperion' was as sublime as Aeschylus, and Shelley had poured out in 'Adonais' the grief and the passion of a flaming indignation and scorn in one of the greatest of elegies; no memory contemplating the agony of a dying youth stricken with consumption and torn with the tragic spectacle of defeated ambition. Let him rest forever in the obscurity to which circumstances have condemned him. These were her words in the face of all these things."

That Fanny Brawne was a shallow, conceited coquette, inflated with egocentricity, may be admitted. Keats would have been suspicious of her, had she been devoted to him. From his own suspicional introspection, Keats had formed the idea that he would not be happy in love. This suspicion

would require but a feeble touch in reality to give it force.

Keats met Fanny Brawne in the fall of 1818. He quarreled with her February 1819, but continued to write as a devoted lover until the spring of 1820. The first letter was dated July 1818, the last May 1820. He inspected the Greek urns in the British Museum, February 1819. Three months later, he wrote the "Ode to a Grecian Urn." In late April, hearing a nightingale sing in a garden, he wrote his "Ode to the Nightingale." In April, 1818, he wrote "La Belle Dame Sans Merci." In August and September, 1818, he worked on "Lamia." The first hemorrhage occurred in February 1820. He left England in September, 1820, and died in Italy in February, 1821. "The Keats of the first volume" ("Poems," 1817) is, according to Mordell, "a different person from the Keats of the 'Lamia' volume of 1820. The intervening years brought a maddening love affair, a fatal review attacking 'Endymion.' His art principles remained much the same. With growing sorrow, he worshipped beauty more and sought in it a refuge for grief. His attitude toward woman and life was now different." It is evident, however, that the difference in attitude, even according to Mordell, was one of degree, not of kind. Mordell says: "He paid woman a tribute in the poem in the first volume beginning with the line, 'Woman I behold thee,' etc. But he had not suffered from a Fanny Brawne; for, he here speaks of woman's being like 'a milk-white lamb that bleats for man's protection.' And, yet, before he was 20, he may have had a foreboding that his fate in love might not be a happy one. In the poem, "To Hope," he wrote:

Should e'er unhappy love my bosom pain
From cruel parents or relentless fair,
O let me not think it is quite in vain.
To sigh out sonnets to the midnight air.

Alas for himself but, perhaps (it may be cruel to say), fortunately for the lovers of literature, these sonnets and other poems were sighed out later! Keats' love of beauty had a strong sexual component. His unfulfilled physical desires were sublimated into poems worshipping beauty. Art was his refuge.

The irritable erethism of Keats was present long before the meeting with Fanny Brawne. This appears in the chancre episode of Oxford. It was a characteristic of Keats not elicited by Fanny Brawne, but a part of the tuberculosis mentality. The "unconscious," which Mordell so often cites, undoubtedly was a suggestion of this irritable erethism of tuberculosis. This, quite often in evidence in phthisis, is a phase of emotional mobility.

"Keats," as Mordell admits, "has himself written that he had sensuous night dreams." He wrote, in April 1819, the sonnet: 'A Dream' after reading Dante's episode of Paolo and Francesca. "The dream was one of the most delightful enjoyments I had in my life. I floated about in the wheeling atmosphere, as it is described, with a beautiful figure, to whose lips mine were joined, it seemed for an age, and in the midst of all the cold and darkness I was warm." "The episode of Paolo and Francesca is sensuous. The phthisis erethism was present in Keats, but, despite this, Mordell must have the Freudian mechanism to account for the dream for he remarks: "A flying dream always has a sexual significance even without any female figure to accompany the dreamer." "Of course," Mordell remarks: "this figure was Fanny Brawne to whom Keats had just been, or was about to be, betrothed." The same assumption appears in Mordell's comments on the "Ode to the Grecian Urn." Although, to a tuberculosis-affected poet or even an ordinary poet, the urns of the British Museum might have been a sufficient suggestion for poesy, Mordell finds that the poem is "the song of unsatisfied desire. Keats frustrated in his love had the one resource, to make poetry and create beauty out of his sorrow. To the future he, too, would be like that lover created by an ancient artist, panting for love ever young." The ode to a nightingale has to every one the same suggestive factors, but Mordell has to find that "the unconscious sex symbolism in the wish to fly with the nightingale is a further proof of his unsatisfied love."

Of the poem, "Lamia," which is a phallic phase of ophiolatry, or serpent worship, Mordell remarks: "When he resolved to make a poem of the little tale he read in Burton's 'Anatomy of Melancholy,' it was his unconscious that chose the theme for him."

Careful analysis will show that, had Fanny Brawne never existed, Keats' contributions to literature would have been

as great, albeit his sorrows would have been somewhat less since they were in part due to tuberculosis suspicionalism. Had Keats confined himself to the routine of the medical practitioner, his life might have been preserved, since the emotional alternations of the man of letters were certainly productive of vasomotor changes stimulating mental and other symptoms of tuberculosis and thus producing exhaustion.

Sidney Lanier

The life of Lanier is somewhat in contrast with that of Keats albeit at times there is very little doubt that tuberculosis tinges his poetry. Sidney Lanier was a son of Robert S. Lanier, a descendant of Jerome Lanier, a Huguenot refugee at the court of Queen Elizabeth, probably an expert musician. His son Nicholas was in high favor with James I and Charles I as director of music, painter and political envoy. His grandson Nicholas was first presiding officer of the Society of Musicians, incorporated at the Restoration. Thomas, a descendant of Nicholas, emigrated to Virginia in 1716.

Sidney Lanier's mother was Mary Anderson, descendant of a Scotch family renowned in Virginia for poetry, music and oratory.

As a child, Sidney learned, almost without instructors, to play on almost every instrument. As a boy, he played the flute, piano, guitar, violin and banjo, especially devoting himself to the flute in deference to his father who feared for him the powerful fascination of the violin. During his college years, the violin would sometimes so exalt him in rapture that presently he would sink into a trance, awaking with sorely shaken nerves.

He was educated at Oglethorpe college; a narrow Presbyterian school at Macon, Ga. (He was born at Macon, Ga.) On graduation, he became a tutor, which position he held till the outbreak of the Civil War when he enlisted in the Confederate army, at the age of 19 years.

In 1865, he had premonitory symptoms of phthisis. His mother suffered from phthisis of which she died in 1865. In 1868, he had his first hemoptysis. He studied and practiced law with his father.

Of Sidney Lanier, Macy remarks: "If ever there was a born genius since Keats, it was Lanier. Let there be no sentimentalizing over him, he was a man of humor, he spoke always of his difficulties in a manly fashion, and when death strides into his pages, it is an honest figure and not a personification of the tuberculosis against which the poet fought to victorious defeat. It is humane to remember that he wrote "Sunrise" the year before he died, when he was too ill to eat and his temperature was at 104°; then it is well to remove all the cross-lights of biography and stand face to face with his "Sunrise," a poem magnificent in conception, perfect in workmanship, ultimate poetry. A blood brother to Lanier's "Sunrise" is Francis Thompson's "Ode to the Setting Sun" and I know not a third which is so closely its kin. These poets have much in common, opulence, splendor of metaphor, and an amazing virtuosity in metrical matters, which in turn allies them with Swinburne from whom in thought they are, however, as remote as poets can be."

Macy is puzzled at the resemblance of Francis Thompson and Lanier. Both had severe tuberculosis but they meet in poems free from the tuberculosis taint. This effect of their genius was due simply to what Macy calls predetermined affinities rather than the acquired factor of tuberculosis. Lanier's novel, "Tiger Lilies," published in 1867, probably from mental phases of the time rather than "unconscious assimilation", is reminiscent of Hawthorne. It has the same style of metaphor but allegorizes the civil war. In 1873, Lanier, who had become renowned as a flute player, became a member of the Peabody Symphony Concert Orchestra of Baltimore. Here he was appointed lecturer on English literature at Johns-Hopkins University. He married a devoted woman, Miss May Day of Macon, Ga., to whom he was intensely devoted. He died at the age of 39. His mentality was one not likely to be affected by the suspicionalism and emotional mobility of tuberculosis. It took a scientific attitude toward poetry and literature, as his books, "Science of English Verse" and "The English Novel and the Principles of Its Development," show. "No personality of tuberculosis" (to quote Macy) "and very little of its influence, are to be detected in his work."

There was, however, a very marked factor in heredity: the paternal inheritance of musical and literary factors was quite free from the alternating influence of tuberculo-

sis on which Miss Robinson has laid stress.

The influence of the musical factor of his heredity and environment is shown in the fact that, as Macy points out: "His theory of verse merely codifies, with such technical knowledge as only a musician has, the fact which all poets instinctively know, and all the poetry exemplifies, that poetry is in half its nature music, and that it consists not of spoken words but of chanted words. Professional students of prosody who are not poets (and most are not) have applied to ancient and modern poetry a kind of visual mathematics, and they discourse of Greek measure and English as if they were quite different things. There is only one law for all music and all poetry (independent of the explicit meaning of human words), that law is, if it sounds right, it is right." The poetry of Lanier did not escape caustic criticism. His "Centennial Cantata" was, prematurely, published in advance of the music by Dudley Buck. There was an immense amount of ridicule of it. The cantata was written by a musician to go with music under the (then) new relations of poetry to music brought about by the great modern development of the orchestra, and was not to be judged without its orchestral accompaniment. The criticism pained the poet but did not affect his faith in his theories of art.

"His mind was truly, philosophically, and scientifically accurate as it was poetically sensuous and imaginative." The "Science of English Verse" was based on Dante's thought: "The best conceptions can not be safe but where science and genius are."

Francis Thompson

Francis Thompson, the son of a Lancashire physician, like Keats, was a medical man who sacrificed his practice to literature. He received an academic education in a Roman Catholic college near Durham, England. His medical education was obtained at Owens, Manchester, England, where we was graduated an M. D. He went to London and had a severe struggle for practice. He contracted tuberculosis. This produced religious exaltation that led to the mysticism which pervades his poetry.

Robert Louis Stevenson

Robert Louis Stevenson was born in 1850. His father came from a stock that had produced civil-engineers for generations. His mother was a victim of pulmonary disease with nerve disorders. She had phthisis of the erethistic type of De Giovanni. Stevenson also suffered from it quite early. As a child he was unusually subject to night terrors which passed into transitory depression during the day. He had a childishly unstable imagination. He learned to write quite late but, at the age of 6, dictated a "History of Moses" and at 9, an account of travels in Perthshire. His pulmonary attacks prevented regular schooling. At school and college, the tuberculosis instability made him an incorrigible idler and truant; still, outside of school and college routine, he had eager curiosity and mental activity. The difficulty in his school and college training resulted from lack of fixity of purpose and attacks of apathy which inevitably conflicted with continuous work. These tendencies appeared throughout his life.

Although he showed some aptitude for engineering and received a prize for an improvement in lighthouse apparatus, his irregular health and consequently irregular power of mental application led him to abandon engineering and study for the bar. For some years, he attended the law classes at Edinburgh University. He was called to the bar in 1875. His fanciful mentality led to frequent literary attempts. He wrote family and school magazines between his 13th and 16th year. Of these he was editor, contributor, and illustrator. In his 16th year, he wrote a pamphlet history of the Pentland rising. He had previously tried his hand on a romance on the same topic.

The influence of his mother had much to do with his early literary activity. While the restlessness of tuberculosis much influenced her mental activity, still, she came from a stock endowed with literary skill and philosophic acumen.

For four or five years after the Pentland Hills pamphlet, though always writing in prose or verse, he kept his efforts secret and generally destroyed them. There was a romance on "Hackston of Rathilet," a poetic play on "Semiramis" in imitation of Webster, and a series of dramatic dialogues in verse. What was preserved, shows as much power of observation and expression as much of his later work.

Influence of Tuberculosis on Adolescence

The tuberculosis factor affected the onset of his adolescence. There is, as G. A. Coe

remarks, "a reflective introspection and self criticism, that sets in somewhat precedent to puberty. The absorption of child consciousness in objects now gives place to self consciousness, destined soon to become most intense. Heretofore, the child has taken himself objectively. But, now, he discovers himself and this self is a quivering mass of sensibility. The things about him also get an inner side now and it is their ultimate principles and their hidden relations to him that interest him. He can no longer take things as they appear nor can anything be taken for granted. Much less can he believe anything merely because other people say so." This self-conscious conscience becomes morbid when to the stress of puberty is added a morbid factor. From stress of puberty, very great in a youth of his physical make-up, and from stress of tuberculosis, Stevenson inevitably "had a restless and enquiring conscience which kept him inwardly calling into question the grounds of conduct and the accepted code of society."

Religion had a tendency to become religiosity. Dogmatic Christianity gave place to morbid sentimentalism.

Stevenson's Marriage to Mrs. Osbourne

There were continual pulmonary symptoms preceded by tuberculosis irritability called acute nervous exhaustion. He finally passed his bar examination but never practiced law. For the pulmonary and nerve symptoms, climatic therapy was the chief prescription. In 1879, he met Mrs. Osbourne whom he afterwards married. She was separated from her husband and lived with her daughter and son in the art student circles of Paris. She returned to California, where Stevenson followed her by emigrant ships and trains to the great detriment of his health. He suffered from pleurisy, febrile reactions simulating malaria and nervous erethism. He wrote then the gloomy "Pavilion on the Links"; "A Vendetta in the West" and the first draft of "Prince Otto." In 1880, Mrs. Osbourne secured a divorce from her husband and Stevenson married her.

This marriage has been quaintly discussed by Mordell from the Edipus complex viewpoint. "In his astonishing 'A Chapter on Dreams,'" remarks Mordell, "Stevenson has shown us how dreams influence authorship. He tells us how the 'Brownies,' as he calls the powers that make the dreams, reconstructed his tales; however, he often had to reject some of these stories because of their lack of morals. Wicked dreams are dreamt even by virtuous people since the material is drawn from the psychic life of our infancy and primitive ancestors. Stevenson relates how his famous tale 'Dr. Jekyll and Mr. Hyde' was suggested by a dream. Stevenson, in his essay, relates a dream where unwittingly he lays bare much about some past experience in his life. He found it too immoral, he says, to make a tale of it. But he did immoral things in his dream; these were related to certain wishes in his waking hours. Stevenson dreamed he was the son of a rich wicked man with a most damnable temper. The son lived abroad to avoid his parent, but returned to England to find his father married again. They met and later in a quarrel the son, feeling insulted, struck the father dead. The stepmother lived in the same house with the son who was afraid lest she detected his guilt. Later, he discovered her near the scene of the murder with some evidence of his guilt. Yet they returned arm in arm to the house and she did not accuse him. He asked her why she tortured him; she knew he was no enemy of hers. She fell on her knees and said she loved him." Mordell refers this dream to the fact that Stevenson differed from his Calvinistic father about liberalism in religion, and also to the opposition of his father to marriage with a divorced woman. The date of the dream is hardly reconcilable with the circumstances narrated, but this makes no difference to the wish content of the dream. "We might," says Mordell, "trace the dream to much earlier material in Stevenson's life if we knew all the facts. We do know, he had an earlier love affair in youth in which he was disappointed." The Edipus complex is forced into the interpretation despite the logical differences of a free thinking son and a Calvinistic parent.

"Chasing the Cure"

Mrs. Stevenson was a devoted wife and nurse. As the slightest nerve exhaustion brought on cough, expectoration and extreme febrile reactions, her nursing was much needed. Between 1880 and 1887, Stevenson tried climatotherapy, but with the change instability of the tuberculous. He went to Davos, where emotional exaltation shows itself in humorous verse, prose, and

illustration. On his seeming improvement, he returned to Scotland. Here he wrote the rather morbid sketches: "Thrawn Janet," a story of demoniac possession, and "The Merry Men," a story of a victim of a morbidly unequal conscience with an intellectual enjoyment of evil such as Hawthorne pictures in "Ethan Brand," the man who committed the unpardonable sin.

He also began "Treasure Island" which was accepted by "Young Folks." He was ordered to Davos again and wrote "Familiar Studies of Men and Books." As his wife was never well at Davos, they removed to Marseilles whence they were driven to Hyères by a fever epidemic. Here, Stevenson enjoyed a respite from ill health lasting nearly a year. "Treasure Island" had been a financial success. Stimulated by this, Stevenson wrote the "Treasure of Franchard" and recast "The Black Arrow," "The Silverado Squatters" and "Prince Otto."

In 1885, he finished "The Child's Garden of Verse" and "Prince Otto." He began a romance, "The Great North Road," but relinquished it to write a second series of "New Arabian Nights" called "The Dynamiter." During the same period, he wrote "Memoirs and Portraits," "The Body Snatcher," "Olalla," "Misadventures of John Nicholson," "Markheim" and several plays in conjunction with Mr. Henley. His two successes at this time, were "Strange Case of Dr. Jekyll and Mr. Hyde" and "Kidnapped." Under the title "Underwoods," he published a collection of verse.

In 1887, he left for Colorado but, *en route*, he was persuaded to try Dr. Trudeau's sanatorium in the Adirondacks. Here, according to Trudeau, he showed a good deal of tuberculosis erethism and apathy. He exhibited a morbid antivivisectionalism as to the animals used in Trudeau's laboratory. Here, he wrote the ballad "Ticonderoga" and began "The Master of Ballantrae."

On June 26, 1888, the family set out on a yachting cruise to the south seas. They remained at Hawaii six months, with great benefit to Stevenson. In June, 1889, they cruised in the Pacific, reaching Apia, Samoa, at Christmas. The party went to Sydney, Australia, where Stevenson fell ill; whereupon the cruising was resumed. He bought 400 acres on the mountains above Apia, Samoa, which he left to be cleared while he resumed his cruise. During his voyage, he finished "The Master of Ballantrae," two Polynesian ballads and other verses. At Samoa, he wrote "The Bottle Imp." In November, 1890, he took up residence in his Samoan home, Vallima. He entered actively into the controversy with the Samoan German officials. Stevenson seems to have been right about these, for the governing powers (Germany, Great Britain and the United States) dispensed with their service.

Stevenson showed much erethism in the form of gaiety and *spes phthisica*. On December 4, 1894, he was talking gaily with his wife, when sudden cerebral hemorrhage laid him at her feet. He died at the age of 44. The restlessness of tuberculosis prevented climatotherapy from being of much permanent benefit.

As for Heredity

While, in nearly all these cases, there is to be noted maternal tuberculosis, the strongest mental activities were as a rule on the father's side. Keats' father was bookish while his mother was pleasure loving. In Lanier's father there was a long hereditary history of devotion to music. His mother's people were, however, noted for music, poetry and oratory. Thompson's father was a physician. The mathematical genius of the engineer was present for generations in Stevenson's paternal ancestry. His mother was, however, literary while her ancestry had marked philosophic acumen.

The mental state of tuberculosis is controllable by environment; but, when the proper environment is lacking in the mother, owing to her tuberculosis, it is not easy to exercise needed early control. The irascibility of the child may, and often does, coincide with the apathy of the mother, when it is easier to humor than to control. Regular systematic psychotherapy is needed, but the persons who are to employ this can not achieve good results if they, too, have tuberculosis. The constant agitation for a new treatment (for, the *spes phthisica* is fitful and seeks, like hysteria, something new because of its newness), is damaging to the mental equipoise which is a *sine qua non* for tuberculosis.

Does the evidence from these cases show that tuberculosis is in any way a factor in the creation of genius? There is no doubt but that tuberculosis may coexist with

genius, but the coincidence is accidental, not causative. Contrariwise, there is no doubt but that tuberculosis may destroy genius. When the symptoms of tuberculosis are dominant, genius is weakened or non-existent. When tuberculosis exists, genius is weaker, not stronger, for its existence. It is evident, therefore, that tuberculosis, like other degenerative factors mars but does not create genius.

Treatment of Pulmonary Tuberculosis

By WILLIAM LANGSFORD, A. B., M. D., Oklahoma City, Oklahoma

EDITORIAL COMMENT.—Here is an excellent, practical paper, without any needless theoretical frills. The contributing causes for the development of tuberculosis are well put. The treatment is sound. We may well profit from Doctor Langford's instructive contribution.

IN THE early stages, pulmonary tuberculosis can not be definitely diagnosed by physical examination. Its presence may be strongly suspected, and confirmation can be established by the Moro or the von Pirquet tests and by x-ray examination. The Moro and von Pirquet tests are so simple and so easily made, that they should be applied as a routine procedure in all cases. This is becoming more and more common and, together with the x-ray examination, is bringing about earlier diagnosis; and, consequently, more cures.

To offset this laudable condition, we have to deal with an increase in the number of infections due to our custom of overcrowding. Economic conditions seem to demand more and more a denser congestion in our cities, with an ever increasing liability to disease; for, tuberculosis bears a direct ratio to the density of the population, irrespective of climate, altitude or race. This is a serious question that must be worked out by statesmen and manufacturers, and by all employers of labor.

After overcrowding as a causative factor, comes dust. After a dust storm, all tuberculosis patients exposed to it in Colorado showed marked exacerbation of the disease with elevation of temperature and other symptoms. New areas of the lung had become infected through tiny wounds produced in the mucous membrane of the bronchioles by the sharp particles of dust. As sharp particles of coal are carried to all parts of the lung in coal-miners, so do these sharp particles of sand cut the lung tissue and work their way into it, permitting the ever-present germs, tubercle bacilli or others, a fresh entrance.

It has been proven that tuberculosis germs and others, injected into a healthy trachea, are quickly killed without injury to the tissues. But, in the inflamed or lacerated mucous membrane of the trachea or bronchi, they get in. Some remain dormant or latent, although many are killed. Statistics of our jails show that 75 percent of all who enter have latent tuberculosis.

Dust, Darkness and Worry

Fifteen years ago, while looking up the life of Pasteur, I noticed that he once conducted a singular experiment. When he had discovered the anthrax bacillus, he wished to prove that it was the germ that caused the death of the sheep kept in certain fields. He sprinkled a culture of the germ over the grass in a field where the disease had not appeared. The sheep were turned in and ate the grass. Next morning, he went out, expecting to find all the sheep dead. But, they were as healthy as ever. They had eaten the grass and the germs and had not been harmed. After considering the matter, he concluded that it must be the sand washed on the grass by the rain that had helped to cause the infection of the sheep; so, he made fresh cultures and sprinkled them on the grass, scattering sand on the grass wet with the cultures. The sheep ate the grass and next morning, were all dead of the disease. The germs were harmless to the uninjured mucous membrane of the alimentary tract, but deadly when the sand had made even very minute abrasions.

After reading this, I ordered my tuberculosis patients to remain indoors and close all windows during dust storms. Fresh air is not as necessary as is absence of dust. No exacerbation showed up after this precaution was taken.

If someone could popularize a mask to

be worn in dusty weather, a great many of our active tuberculosis cases would be prevented from developing, and a still greater number of latent cases.

Darkness is the next in order as a causative factor. Many have written of this, and statistics have been given showing the effect of dark rooms and insufficient light. Still, our legislators and building commissioners have taken no notice, and our women show their atavistic tendency by rivalling each other in their desire to see how nearly they can imitate their cave dwelling ancestors. What with draperies, shades and shutters, one wonders why we have windows at all unless it be to cover them up.

Psychic Factors

Despondency, remorse, worry, mental strain in general, are some of the great causative factors to bring out latent tuberculosis. Laennec drew sharp attention to them over a hundred years ago; yet, it is rarely that physicians take them into consideration.

The psychic condition of all these patients must be carefully examined, and your personality must arouse the despondent remorseful tuberculosis patient to a proper outlook for happiness and a forgetting of bygones. Outdoor life not only is beneficial of itself, but, by its keen sense of freedom, the absence of confining walls, and the exhilaration, hope and happiness it produces, it causes a beneficial psychic effect.

I have seen much benefit accrue to new tuberculosis patients by meeting others who had been treated and cured. I have the cured ones come back to my office every three or four months for examination (free), not only for the purpose of seeing that they are still well, but for the psychic effect upon others. One will say, "I have been cured a year"; another, "It is three years since I was dismissed"; another, "I have only been under treatment two months but I have hardly any fever and am coming down here." The effect is marked. I believe that the psychic management of patients is one of the most difficult problems and a very delicate one. With many physicians, it is the one thing lacking to make them eminently successful in the handling of tuberculosis patients.

Mixed Infections

After determining the amount of lung involvement by the stethoscope and x-ray, the activity of the lesion by the sputum examination, and the status præsens of the case and the existing resistance by the Moro or von Pirquet tests, the general summing up of the case, it is desirable to know all associated germs aiding in causing disease. Several microscopic examinations may be necessary and, whatever germ or germs besides the tubercle bacilli are present, a sensitized vaccine should be used vigorously twice a week, or oftener, to overcome it. I have found twice a week the best method.

Nearly all these cases have streptococci and pneumococci in conjunction with the tubercle bacilli. In 1903, I commenced using antistreptococcic serum, and have lately been giving 50 mils (Cc.) of antistreptococcic-antipneumococcic serum intravenously, as a preliminary, with marked benefit; namely, a lowering of the temperature, sometimes remarkable, a lessening of the toxemia. A second dose is rarely needed. This is followed by the sensitized bacterin once or twice a week, as one's judgment dictates, for three months or more.

I have seen cases of apparently tuberculous nature; x-ray findings, and physical signs, night sweats, and so on, every detail being typical of tuberculosis. But, after painstaking search, no tubercle bacilli could be found, even after an antiformin test. The sputum showed pure cultures of catafrhalis germ in chains of 150 to 200. These cases offer a very grave prognosis. I have had no success with them as yet.

Tuberculin Treatment

The tuberculin treatment of these cases must be most accurate. It is better to take the higher concentrations and dilute down at the time it is given. Have all patients take the treatment the same day and throw the remainder of the dilution away; 1/2000 milligram is the usual dose I use, and I never go higher than 1/1000 milligram. Increasing the dose above this, is a grave mistake, grave in every meaning of the word. Once every seven to ten days is suitable and quite frequent enough.

As for tuberculins, I have used a culture of my own, obtained by culturing tubercle bacilli from many patients, and I have used the preparations on the market. I can not see much difference. The whole emphasis of this part of the treatment rests on the small dosage.

Tuberculin is now being put up in tablet form, which is claimed to be more stable

than the liquid preparation.

Diet ranks with medical treatment. I give my patients second-break wheat, which is flour produced from wheat put through two sets of rollers. Whole wheat in some form is necessary for the perfect building up of all diseased tissues. One intelligent patient said, "Doctor, if it is so good to get well on, it ought to be good to keep well on." Our American slang is very trite, and I could not help remarking that he had said "a mouthful."

After all, there are only three vulnerable points in the human citadel; the respiratory tract, the alimentary tract, and the skin. Masks to prevent breathing dust will guard the first, second-break wheat will go a long way towards guarding the second, and anyone ought to be able to guard the skin.

Another important point: In all tuberculosis cases, I have found that certain endocrine glands are overtaxed, and that the administration of the extract of these glands in proper doses aid the patients until they recover. The adrenals suffer most, also the thyroid; hence, extracts of these glandular substances are given.

Again, the calcium content of the blood in tuberculosis is very low (Broderick) and the hypophosphite of calcium should be pushed. Now, certain of these endocrine glands favor calcium retention, and some promote calcium elimination. The adrenals and the thyroid are the ones that favor retention, so we have a twofold object in prescribing the extract of these glands; namely, restoring the fatigued and overtaxed glands to their proper function, and building up the calcium content of the blood, which has the most profound effect on the healing process.

The healing process is further enhanced by giving moderate doses of emulsion of codliver oil. The extracts are comparatively worthless; it is best to give the pure oil, as such or in emulsion.

Rules for Treatment

To sum up a routine course for a tuberculosis patient:

1. Outdoor life, prevention of darkness, dust, and despondency.

2. Plenty of second-break wheat or whole wheat in any form.

3. ℞ Desiccated suprarenal extract, gr. 1/3; Extract thyroid, gr. 3; Nuclein solution, min. 20.

S. One dose, three times daily.

4. Emulsion of codliver oil with hypophosphite of calcium or calcium lactate. To be taken three times daily, 1½ hours after meals.

5. Tuberculin 1/2000 mgm. with 7½ to 15 minims of sensitized vaccine once a week

The fourth day after, a dose, 15 minims, of sensitized vaccine.

It is not customary for physicians to claim that this or that will cure a disease; but I affirm positively that patients in the first and second stages of tuberculosis always get well under this treatment.

Illustrative Cases

The history of a few of the cases that have been cured under this plan of treatment will not be out of place.

Miss M. H. (13 years): Was sent here from Illinois, in 1906; far advanced tuberculosis, very emaciated, many tubercle bacilli in large quantity of purulent sputum. No sign of puberty. After five months' treatment, menses appeared, and patient seemed cured. Moved away to Kansas. I kept in touch with her for eleven years, at which time she was married and well.

Miss K. C. F.: One brother and one sister died of tuberculosis after going to Colorado and New Mexico for cure. Six months' treatment, after which she asked permission to marry, which was granted, as I wished to test the case. She visited me in 1920, eleven years later, and showed me three healthy children, two boys and one girl.

Mrs. S.: Mother and sister died of tuberculosis. She had had forty hemorrhages, and could retain nothing on her stomach; had night sweats and was very emaciated; temperature 103 4/5° F. Thirteen months' treatment. Recovery. Kept in touch with her four years.

Mrs. S. C. T.: Had tuberculosis for some time. Finally, a very severe hemorrhage occurred, and her physician gave up hope of saving her. She came under my care two years before the outbreak of the Spanish influenza. After nine months' treatment, she was apparently well. One year later, she contracted "flu" and, refusing to go to bed, contracted bronchopneumonia with temperature 104 to 105° F. for 22 days. I had several consultants on this case, as I feared a recurrence of tuberculosis. Still she recovered without any return of the disease. I take this to be a fairly severe test.

Montpellier—France

The Oldest Medical School in the World

By B. SHERWOOD-DUNN, M. D., Nice, France

Officier d'Académie; Corresponding Member, Société Obstétrique et Gynécologique de Paris; Ex. Colonel Medical Corps.

IN another part of this issue, there appears a letter from me, which should be read in connection with this paper.

American students coming to France for postgraduate study are prone to think of Paris as the Mecca of their quest; and so it should be; but, for best possible results, only after they have learned the ropes in one of the provincial universities.

Remembering the experiences and mistakes of my own early career in France, it occurs to me to bring to the attention of the rising flood of American medical students, coming here for study, the advantages that accrue from the initiation of this work in one of the Provincial schools. For the purpose of illustration, I have chosen the oldest medical school in France, that of Montpellier.

Professor Derrien, Dean of the Medical Faculty.

The origin of the medical history of Montpellier dates back to the Roman conquest, when the Jews guarded the medical secrets that they had brought from Greece in the archives of their synagogues.

During the middle ages, Rhazes, Avicenna, Constantin, Averroes contributed writings which constitute the foundation of its reputation as a medical center. In a letter, dated 1153, St. Bernard relates that a certain Heraclius de Montboissier, Archbishop of Lyons, fell ill and was transported to Montpellier for treatment.

The town was known as a center of medical knowledge long before a school was organized; the Jews and Arabs imparting their learning to the students coming from long distances.

In 1220, Cardinal Conrad granted the first charter creating a medical school, in the preamble of which appears the statement, "All the world is in accord in recognizing the excellence of the teaching which has for so long existed in Montpellier."

On November 5 and 6, 1920, the faculty celebrated the seventh centenary of the official charter and the ninth centenary of its organization as a school of medicine, the latter dating more than 400 years before America was discovered.

In March, 1919, a large number of soldier students, under Captain Morgan, entered for study in this institution and no member of that body will ever forget the solemn pomp of the ceremony of their reception or the universal warmth of the friendship extended to them.

The City of Montpellier

Montpellier itself is a very beautiful and interesting city of 80,000, dating from the eighth century. It is distant only 20 minutes by train to the shores of the Mediterranean and four hours from Marseilles. It is warm in the winter. Board can be had in the best hotels for from 20 francs per day up, and good boarding houses at from 300 francs per month. Foreign students arriving in Montpellier should at

City of Montpellier.
1. Public Park 2. Square of the National Theater. 3. National Theater. 4. Comédie Square. 5. Château d'Eau and Aqueduct. 6. Arc de Triomphe.

once communicate with Prof. M. Valery, 9 rue de la Vieille-Intendance, who is secretary of the committee for foreign students. Better still, they might write him for any information that may not be contained in this article, before leaving America.

Students from America coming to Marseilles by the steamers of the company "Messagéries Maritimes" are accorded a discount of 30 percent from regular rates, provided that they present, at the port of departure, a certificate from Professor Valery, secretary of the Committee for foreign students.

Three separate railway lines and three trainways lead out of the city in different directions, affording excursions to points of prehistoric and Gallo-Roman interest, while the city is rich in monuments of the Middle Ages.

Foreigners are made much more of in all of the provincial cities of France than in Paris, which is constantly crowded with them. As Montpellier desires to attract foreign students to her schools, special arrangements have been made and an organization created to care for and render their stay as agreeable and profitable as possible.

The University

Two courses in French are delivered between the first of November and the thirty-first of March, free of charge. Students

Medical School at Montpellier.
1. (Center) Main Building. 2. Entrance. 3. Anatomical Theater. 4. (Center) Dissecting Theater. 5. Vestibule. 6. Institute Bouison-Bertrand. 7. Botanical Gardens. 8. Garden of Plants.

attending the clinics pay a fee of 30 francs and 15 francs additional for the class of practical instruction. For the use of laboratories and library, a charge of 50 francs is made. Students desiring to secure the diploma are required to comply with certain formalities so as to obtain the permis- of the Minister of Public Instruction. Full information can be had by writing Professor Valerg, as stated.

The University buildings are located together in the center of the city and the laboratories, clinics and hospitals are grouped in one quarter, saving time and distance; which is a great advantage over Paris, where these necessary adjuncts are distributed in the four quarters of that great city. For students unacquainted with the French language but desiring to learn it, arrangements have been made by the committee for foreign students to secure for them accommodations in private French families, where conversational or grammar lessons are given in addition to residential advantages.

The Faculty Building is massive and imposing. The vestibule entrance is lined with the pedestaled busts of past masters and inspires the visitor with a sense of the dignity of the institution. The anatomical theater was built under the first Napoleon and seats 500 students; the dissecting room is spacious and well lighted. The Garden of Plants and Botanical Gardens are extremely artistic and beautiful. The Garden of Plants dates from 1558 and has, with the Botanical Gardens, always been made a prominent feature of the school; in fact, it is one of the most important in Europe and is celebrated for the great number and variety of its plants. Its success is largely due to the temperate climate in which it is situated. The Institute Bouisson-Bertrand is devoted to original work

1. Hospital Sanatorium for Tuberculosis. 2. Hospital for Nervous and Mental Diseases. 3. Ophthalmic Clinic. 4. Maternity Hospital. 5. Prof. Ducamp (Clinical Medicine) with assistants and students.

in serumtherapy and immunization and in biological research.

Montpellier was the first school in Europe to establish a hospital sanatorium exclusively devoted to the treatment of tuberculosis. The hospital has a clinic and laboratory annex. A special hospital is devoted to ophthalmology, one to mental and nervous diseases, accommodating several thousand inmates. There also is a Maternity Hospital.

In the General Hospital are found the clinics for nervous diseases, genitourinary and skin cases, for otorhinolaryngologic patients; these clinics are conducted in addition to the hospitals devoted to these specialties.

The Suburban Hospital contains two medical clinics, two surgical clinics and an orthopedic clinic; also clinics for children's diseases, for gynecologic patients, and for radiology and physiotherapy.

The Institute of Biology and Hygiene is one of the best equipped in Europe and adjoins the Faculty Building. In the Faculty Building, there is a museum of anatomy, second to none.

The staff of professors and teachers count among their number men of international repute. Derrien is dean and professor of medical and chemical biology; Giles, professor of anatomy; Vialleton teaches histological anatomy, Hedon, physiology; Imbert, medical physics; Bosc, pathology and therapeutics; Vires, therapeutics and materia medica; Bertinsans, hygiene; Té-

A Surgical Ward in the Suburban Hospital.

denat and Forgue, clinical surgery; Vallois, obstetrics; Mairet, nervous diseases; Truc, opthalmology; Baumel, children's diseases; orthopedics; de Rouville, gyne-

General Hospital, Montpellier.

The Suburban Hospital.

Children's Clinic in the Suburban Hospital.

cology; Mouret, oto-rhino-laryngology; Teambran, genitourinary diseases; Professor Agrégé Pech is the inventor of the manometric mask and glyphocinema.

The direct and cheapest route for Americans is, to come by steamer direct to Marseilles and then by train to Montpellier, where they will find a genuine and hearty welcome.

54 B^{d} Victor Hugo, Nice, France.

Buying for the Hospital

By HENRY B. HOLLEN, Ph. C., M. D., Chicago, Illinoif

MANY hospitals are privately owned and others are maintained by state or federal authorities or by religious organizations; some are charitable or semicharitable projects, while still others are, like any other business, run with capital to yield a fair profit on the investment. No matter what the category in which a hospital falls, however, there is one objective common to all of them and that is, to secure the best available working supplies; a task which belongs to the steward or superintendent of the institution and sometimes, in the smaller ones, to the medical director himself.

Not only is it profitable in terms of money to buy circumspectly all that is needed in the way of medical and surgical supplies, from chloroform to zinc-oxide ointment, say, but it is profitable in terms of results. And after all, it is what one actually accomplishes, as concretely evidenced by results, that determines whether an institution shall, in the long run, prosper or fail. Even those entirely supported by church or state funds are not to be accounted as successfully managed unless the results obtained are at least as good as the average. To have results as good as the average is something, of course. But for the more ambitious of us this is not enough; we want results better than the average.

A Surgical Dressing That Saves Time and Money

In general hospitals where surgical cases are taken care of, materials for dressings are important items, calling for a considerable outlay of money, if many operative cases are handled. A small saving can be effected by buying in quantity lots. But, a great deal more can be saved by using the newer non-adherent dressing, made by impregnating a coarse cotton mesh with a paraffin compound. In hospitals where this is being used, from 50 to 75 percent less of absorbent cotton and overdressings is needed than when ordinary gauze is used exclusively. This socalled lace-mesh, nonsticking dressing is supplied in rolls of convenient width.

In hospitals where many cases have to be dressed daily, a great deal of time is saved by using it, also. And that is something to appreciate. For, is it not a matter of observation how slow and tedious is the operation of removing an adherent dressing? From ten to fifteen minutes is often consumed, as, bit by bit and assisted by warm water or peroxide solution, the gauze is coaxed off. Not only is time lost by doctor, nurse or interne, which might with advantage be spent elsewhere and at other tasks, but the patient himself often suffers keenly, and, the moment it is over, anticipates with dread the next redressing. When parresined lace-mesh is used, there is little pain experienced, if any, as the patient will at times gratefully acknowledge.

As for results, they are distinctly better in wound cases, whether surgical or traumatic. Healing is expedited rather than retarded, as it is when ordinary adherent gauze is employed, which scarcely ever fails, on removal, to tear or pull upon the fresh granulations, thus inflicting new injury and in a measure defeating the natural healing process.

The New Parresine Application for Burns

The average hospital is charged with the care of many burn cases. Until quite recently, these were treated with such agents as sodium bicarbonate, picric acid, olive oil and carron oil. The last is popular; it allays the pain somewhat but is a filthy application and likely to be followed by unnecessary pus formation. The leading infirmaries and hospitals are now using a compound of paraffin and certain waxes, with eucalyptol. This is what is known as parresine. It is supplied by the chemists in half-pound cakes which, melted, yield a fluid of precisely the right plasticity for ordinary working conditions. In use, one or more of these cakes are melted over a flame or hot surface and the fluid is sprayed upon the burned area or applied with a soft brush. When so applied, a thin occlusive film forms as the fluid cools; this film is also plastic and non-adherent, and may be peeled off readily, as one would remove a glove.

The application is cleanly; the most extensive burns can be redressed with less

trouble than by the old methods; and healing is secured without infection, suppuration, and disfigurement from scars, in most cases. It relieves the pain in a manner that is almost magical. And, the relief comes at once or the moment the film forms, which is very quickly.

In Hospitals the Chlorine Antiseptics Are Fast Displacing Others

Never, of course, is the matter of price to be weighed against quality. Drugs not qualitatively right and as labeled are unfit for use under any circumstances. One does not seek drugs at the bargain counters. Only a fool or a knave would venture to do that. But, when one can procure a better agent, say a germicide, than he has formerly used, and at a less cost incidentally than he has formerly paid, there is a double gain. And, if the new germicide be not only more effective but also harmless to the person and safe to have about, the gain is considerable. Once, phenol and mercuric chloride, rank and dangerous poisons though they are, leading to many mishaps, figured conspicuously in the hospitals for cleansing the site of operation, for hand disinfection, in wound treatment and so on; as also did permanganate of potash and iodine in the tincture or as the all too familiar dusting powder, iodoform. (Those who still persist in using iodoform ought at least to mask the smell, which they may accomplish by adding cumarin to it, grs. 2 to the ounce).

All of these antiseptics are fast being displaced by the new synthetic chlorine compounds given us by Dakin. As in the case of parresine, their merits transpired during the war, since which a Chicago laboratory has contrived forms and packages convenient for civil practice. One of them is chlorazene, soluble in water and very active even in weak dilutions. In fact, a 0.1-percent solution of chlorazene will do the work of a 5-percent phenol solution and do it more quickly. Over phenol, as well as bichloride, it has the advantage of being virtually nonpoisonous. If some of it be accidentally swallowed, no serious harm can result. For that matter, it has been prescribed by mouth in certain cases, in 5-grain doses, and with no bad collateral effects. A germicide that couples such extreme efficacy with safety is plainly a great new asset in medicine and surgery. The laboratory referred to supplies it in special hospital packages, which are both handy and economical; also in the form of tablets, from which solutions can be prepared quickly as wanted; likewise as an ointment, a dusting powder and impregnated in surgical gauze.

Chlorazene is also the active agent in a powdered germicidal soap, which is extremely useful in hospitals; moreover, it is a disinfectant that is without the rank smell of cresol preparations and free from their poisonous property.

Another of this same chlorine series is dichloramine-T, soluble only in chlorcosane (oil). It is the agent of choice for treating severely infected wounds. It is also useful in connection with the nonadherent dressing above referred to against possible infection or extension of infection. It is usually applied by spraying and at other times dropped from a pipette. Many surgeons use it to sterilize the skin surface previous to operating.

Substitutes for Cocaine

In the leading hospitals and clinics, more and more surgery is being done under local anesthesia. Two excellent agents of this class are: procaine, which for injection work is quite as effective as cocaine and much safer; and butyn, which supplants cocaine for all purposes. It is ideal for eye operations because it dries up the secretions less and does not disturb accommodation. Also, it acts more quickly; an operation can be commenced almost immediately after the last drop of a 2-percent solution (say) has been injected.

A Useful Hypnotic

Institutions where nervous and mental cases are treated will be interested in barbital. This is the same excellent hypnotic that for years was sold as veronal. Barbital is the official name for it in this country. An enterprising firm of chemists is now making it in large quantities and actually selling it at a lower price than veronal. As a sedative, it acts better than the bromides in alcoholic patients who as a class do not tolerate bromides very well. The old custom of giving bromides to postoperative cases, also, is decidedly bad practice. Instead of quieting a patient, they often excite him to the point of great restlessness, with delusions. Barbital serves much better.

Memoirs of the World War

By DR. GUSTAVUS M. BLECH, Chicago, Illinois

[*Continued from October issue, page 689*]

CHAPTER II.

Preparing for War

WITHIN a few days after the arrival of General Bell and his staff, at Houston, sufficient tents had been put up to shelter headquarters at Camp Logan.

The camp itself was not quite ready. Details of soldiers were still daily at work with saws and axes clearing the ground of trees. One could very frequently hear explosions and see engineer soldiers delight in their work of blowing out large tree stumps by dynamite.

The day I visited Camp Logan first, there were ready only mess shacks and warehouses of wood. Wooden buildings to care for the sick of the diverse regiments (so-called infirmaries) were not very far advanced in construction. The base hospital looked like a ground plan—not a wall was up. Roads through the camp were either trails or hastily thrown up tracks; but not yet in shape to enable heavy wagons to pass without sinking into the ground.

The site was a primitive forest at the outskirts of the city of Houston. In one hour, by rail or trolley, one could reach the sea and I thought of the Galveston flood and the inundation of the military camp of Texas City, which cost the Government vast sums in equipment and stores. Several soldiers had paid with their lives just because the site was almost at sea level.

I did not think that Houston was at a much higher level above the sea than the neighboring coast, but that did not interest me as much as the fact that the ground appeared as level as a horizontal plane; certainly a most undesirable selection for a military camp. From a sanitary point of view, the first rainstorm might result in serious consequences. That the camp remained free from epidemics, proves conclusively that sanitation and engineering attained most astonishing results.

I moved into a tent and made myself comfortable. The tent was not screened and electric lights were not yet strung; but I carried a lamp; and, so, I could read and write the very first evening.

The Division Surgeon's office, like all other offices of Division Headquarters, was temporarily located in a mess shack. Later, a special U-shaped building was erected for headquarters' offices. The shacks had screened doors, but the walls were in an unfinished condition, affording very little protection against flies, dust and rain.

Office supplies were drawn from a depot established in one of nine very large warehouses alongside a railroad spur. But, there was so little stock and the demands were so great that we considered ourselves lucky if we brought back government letter-heads and envelopes, ink, pens and blotting paper. Tables, files, and similar furniture seen in well-regulated offices were out of the question. However, there were carpenters and wood in camp, and, after a few days, Colonel Hathaway, the sanitary inspector, and I were fairly well established. The long mess tables and benches served as writing tables for the clerks and typewriters. None of us grumbled. Even when we had a sudden drop of temperature and the weather was so cold that one could barely hold the penholder in the numbed fingers, we did not grumble.

"Anything to help win the war," was the slogan.

The Division Headquarters

While waiting for the troops to come, let us utilize the spare time to become acquainted with the men at Division Headquarters; for, so far, the reader has been introduced only to the commanding general and to the division surgeon.

Before doing so, it may be of interest to know that, with the exception of his aides-de-camp, a Division Commander has no voice in the make-up of his staff, the War Department arranging all that for him. That this is wrong in principle, will be admitted when one realizes that in a staff one not only seeks master minds, men who know their business from alpha to omega, but who have the stamina to efface their personalities in the interest of success. A commanding general cannot do all the work himself. He is only human and cannot see all that is going on. He must rely on trained men to assist him in his arduous duties of coordinating the diverse units so that they may function like clock-work in

Ambulance Drill.

time of battle. Responsible as the general is for the thirty-three odd thousand lives of his division, this responsibility must be partly shouldered by his staff, though their work is not going to be heralded in orders, self-effacement being one of the characteristics of a good staff officer. A staff officer is the servant of the troops and yet their master—understand that who may.

As regards the small fry on the staff, the whole question did not bother us. We were given a certain amount of work to do and we did it to the best of our ability. Even

A Field Kitchen.

initiative brought little recognition. If you are a subordinate staff officer, you may and are expected to submit your ideas to your department head, who can utilize them or set them aside, as he sees fit. If your ideas bring success, the Division has the glory; if they have been overruled or set aside and failure is the result, all you can do is have a sense of satisfaction in your system, which must never pass the lips.

On an official level, unattainable by any other mortal on the staff, reigns the chief of staff—the right arm of the commander. Officially he is only the highest divisional staff officer, but in actual practice he is, or should be, second in importance only to the Division commander. While he does not exercise command, he is, if he has the ability, the teacher of higher officers in any and all subjects pertaining to their duties in the field; he plans all schemes of instruction in time of peace and assists the com-

General Court Martial.

manding general in the preparation of battle plans in war—surely an exalted position for any soldier to attain.

Chief of Staff, Lt. Col. Naylor and His Colleagues

That position was held by a comparatively young officer, Lt. Colonel William K. Naylor. I had served with him in the 12th

Division on the Mexican border, and knew that he was a man of ability; for, though he was then only a captain of infantry, he had been entrusted with important supply problems. I once heard him lecture to the medical officers on the supply of a division, and one could not help but admire his mastery of the subject, considering that, in 1916, our general staff was such in name only and that all information on staff problems had to be acquired from treatises by foreign writers.

Col. Naylor was a hard worker. Some officers remarked that he lacked tact in dealing with other staff and line officers, but they forgot that this word "tact" is not synonymous with "politeness" in dealing with inefficient colleagues or with "smart" ones, who insisted on having things run their way. With such men, I believe, the most tactful way is to be frankly truthful, and that was Colonel Naylor's way.

If anything, I would say that that officer was not suited for staff duty temperamentally, he was better fitted for command of troops, and I think the Government would have done better to employ him in that capacity. I am sure that with his energy he would have developed a good fighting regiment.

His first assistant was Major (later, Lt.-Col.) Charles Allen, a quiet unassuming gentleman, the counterpart to Col. Naylor in that he had been detailed from the regular army to command a Pennsylvania regiment during the Mexican imbroglio and, in spite of this experience, seemed more disposed to work out military problems at his desk like a scientist.

If next to strategy the supply of an army is the most weighty problem in war, let us meet the Division quartermaster, Major (later Colonel) William C. Gardenhire, a typical regular-army cavalry soldier, who was very "diplomatic" when officers stormed him for supplies that were not on hand. He knew how to appease them, to gain time, meanwhile working with his very able staff of assistants every available army rope to put the division in good shape.

Across from his office is one labeled: Division Judge Advocate. This officer is either a mere automaton grinding out the paper work incidental to trials by court-martial, or else he is a thinking officer who bends every energy to maintain discipline. This office was in the hands of former congressman (Illinois) Burnett M. Chiperfield, who was commissioned a major in the Judge Advocate Reserve Corps.

Tall of stature, a noted lawyer in civil life, one could not help but realize that one was dealing with a man who saw beyond technicalities. I remember that, when I first entered his office, I was amazed at

Col. Burnett M. Chiperfield, Division Judge Advocate.

the large legal library he carried with him; only a very few being Government publications. With him, like with several others of the staff, the reader will have further opportunity to become acquainted; so, we will leave him to visit the Division inspector, a quiet cavalry officer whose piercing eyes would detect defects in the diverse units that would escape casual observers, Major (later Lt. Col.) Wm. Cowles.

The signal section was in the hands of a regular army officer, Major Karl H. Truesdell, who left us after a few months, but who did some fine work in organizing this important branch. He began as a temporary major and emerged a full colonel at the end of the war.

The Division Adjutant's office, where all records, statistics, and orders were arranged and tabulated, was headed by Major (later Lt. Col.) F. G. Huidekoper, a reserve officer, who had written a book on the military unpreparedness of our country. He spoke German and French very well. His

Officers of the Headquarters, 33d Division.

work is not of a character to go beyond routine which was executed with very little confusion.

The Medical Service

I must mention in conclusion our sanitary officer, Major H. H. Tuttle, a Springfield (Ill.) physician who had had several years' experience in camp sanitation as a junior regimental surgeon, as a regimental surgeon and, finally, as an assistant sanitary inspector on the Mexican border.

While Colonel Hathaway is to be credited with initiative in the more important sanitary problems which confronted us in a camp where drainage had to be insured by deeply dug, open sewers, Major Tuttle was an able executive who carried out great improvements and whose constant supervision of messes, kitchens, dishes, etc., reduced the fly evil to a minimum.

Of my own office I have only one comment. Were it not for the fact that I acted as instructor and attending surgeon to headquarters, my staff work could have been spared without being missed. The plan was, of course, to be present as a substitute in the event of casualty. It was during very short periods that I functioned as Division surgeon; and, even then, all more important problems were held in abeyance until the chief returned to his desk.

On the whole, I may truthfully say that General Bell could not complain of his entourage. Among the minor officers were a few who had little ability or, possessed of a modicum of brains, were seeking self-advancement and, blinded by this kind of greed, proved sources of annoyance. Not satisfied to fill their niches at headquarters, they were always parading their own importance. Such men did not last long, an order of transfer ending their uselessness. However, I only wish I could enumerate a number of younger officers who worked silently and efficiently in the various departments. These men were imbued by the proper spirit and, when they have not been retained in the permanent army, have been discharged with increased rank, to say nothing of the appreciation of their superiors and coworkers.

The Illinois Contingent of the 33rd Division

Troops were coming in daily and, before the latter part of September, every unit sent by Illinois to the 33rd Division was in camp.

But, what changes were awaiting them!

At the outbreak of the war, the Illinois National Guard consisted of:

First infantry brigade, composed of the 1st, 2nd and 7th Infantry regiments (8th Infantry (colored) attached).

Second infantry brigade composed of the 3rd, 4th, 5th and 6th Infantry regiments.

One artillery regiment.
One cavalry regiment.
One engineer company.
One signal corps company.
Two field hospital companies.

The artillery regiment was ordered out with the Rainbow Division. Cavalry was not wanted at all for overseas service; so, after a few heart-breaking meetings, our only crack cavalry regiment abandoned its traditions and transformed itself into an artillery regiment by substituting scarlet red hat cords for the yellow ones. The same fate overtook a number of cavalry regiments of the regular army.

A new regiment of artillery was recruited, as well as sufficient companies of engineers to form a regiment. The 6th Infantry arrived at Camp Logan as an infantry regiment, but shortly after changed its blue hat cords for scarlet red and, while the 8th Infantry came to Camp Logan, it was there for the purpose of instruction only. Early in 1918, it was sent to a National Army Division.

The 33rd Division, therefore, began with three regiments of artillery, one regiment of engineers, two brigades of infantry, with a total of six regiments, an enlarged signal corps of two companies, four field hospital companies and four ambulance companies.

Then came the new table of organization: Each regiment of infantry was doubled in strength (from 2,000 to 4,000 approximately) but each of the two brigades was to have only two regiments. Among new troops heretofore unknown on a large scale in our army were:

One train, consisting of headquarters, military police, ammunition and supply trains.

Three machine gun battalions.

Reorganization was begun at once. General Bell decided to transform the 7th Infantry as the train; its Colonel to assume command of that unit, which corresponded to a regiment. I knew the officer concerned very well. His quarters were transferred to Division Headquarters and his tent was placed next to mine; so, we had many a chat. I know that, his ambition to bring back his Chicago outfit crowned with glory as a fighting regiment having been crushed, he took his fate with soldierly fortitude. Later, he was discharged for physical disability.

The 5th Infantry was dissolved, its personnel furnishing the nucleus for the three machine gun battalions and an increase for the other infantry regiments. The battalion and company officers could all be placed in the new formations, but the Colonel, for whom a suitable place was being planned, made all further calculations unnecessary. He began to shout "politics", denounced the state authorities, wired to his representatives in Washington, and began a campaign of his own in the public press. But, the Illinois State authorities had no jurisdiction after the troops had become incorporated in the army and, for once, we saw, to our great satisfaction, that the old magic carpet labeled "political influence" not only failed to rise but remained like any ordinary carpet, quiet and even noise dampening. The Colonel would have his regiment or none—he did not get his regiment.

Of the two brigade generals, one was declared physically unfit for field duty by a board of officers in Washington. The other left the division in France and was killed in action, while attacking a machine-gun nest. Of all infantry colonels that came to Camp Logan, only one remained, one resigning, one being sent to the S. O. S. in France, etc.

[*To be continued.*]

"IT'S a good thing for the world that some of us don't know so much. And it's a better thing for the world that some of us think a little earthly common sense is more valuable than too much heavenly knowledge."
—Susan B. Anthony (in "The Story of a Pioneer", by Anna H. Shaw).

Studies in Endocrinology

The Thyroparathyroid Apparatus and Its Relationship to Modern Medicine

By REGINALD WEILER, B. S., Ph. G., M.D., New York City
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OF ALL the endocrine organs, the thyroid gland (from the Greek, *thyreos*-shield) has been studied by far the most. It was not until comparatively recent times, however, that there has existed any recognized relationship between the thyroid and the parathyroid glands in the minds of the anatomists, pathologists, and clinical experimenters. Now, we recognize that these glands go together to form a system which Doctor Sajous has so admirably named the thyroparathyroid apparatus. But, further still, that savant has conclusively proven and verified the fact that the pituitary-thyroparathyroid apparatus, and the adrenal glands from a complete and independent system in themselves.

In glancing over the names of those who are connected with the development of our present-day knowledge of the thyroid and parathyroid glands, we are struck by the large number whose fame has been passed down to posterity. This alone attests to the fact that, very early in medical development, the great importance of the thyroid gland was not underestimated.

History

Before Theodor Kocher called the attention of the world to the fact that thyroidectomy, if skillfully performed, is not a very risky operation, the excision of the thyroid gland was regarded by these earlier surgeons as an extremely dangerous undertaking. The symptoms of exophthalmic goiter were explained very satisfactorily by Moebius. He taught that all the morbid manifestations were caused by an excessive secretion of some substance or other which is supplied by the thyroid body.

Tillaux, in 1880, probably was the first man who pointed out to the medical profession the wonderful results which can be achieved by the surgical treatment of exophthalmic goiter. Four years later, Rehn sustained Tillaux and inspired the surgeons of the time with more confidence in connection with performing the heretofore dreaded thyroidectomy. Even before the time of these two, the immortal Kocher made the path easier for these men by explaining much of the pathology and physiology of the thyroid in health and in simple goiter. Of late, the technic has been much added to by the researches and labors of Charles H. Mayo.

Parry, in 1786, and Flagain, in 1800, had described exophthalmic goiter. In 1828, Adelmann showed that hypothyroidia caused other symptoms besides a goiterous tumor and described these accessory signs with especial reference to the socalled goiter heart. Graves, in 1835, wrote with such clearness on the disease that to this day a large part of the medical profession calls exophthalmic goiter Graves' Disease. Five years later, von Basedow gave a wonderfully learned description of this malady and, in 1858, following Hirsch's suggestion, the name Morbus Basedowii was adopted by medical writers.

Among those best describing the symptomatology of thyroid disorders, are the following: Charcot, in 1858; von Graefe, in 1864; Stellwag, in 1865; Marie, from 1856 to 1900; Gull, in 1873; Kocher, in 1882; Ochner, in 1910; and Sajous, in 1900.

Before 1880, the parathyroid granules had not been discovered. In that year, Ivan Sandstrœm pointed out that there existed some four small bodies near the thyroid gland. Several observers had noticed them before Sandstrœm, but had passed them by as small lymphnodes, or accessory thyroids.

Remak is said to have first made mention of them and Virchow, in 1865, described some "lymph nodes" he found in and in apposition to the thyroid. Barber, in 1876 and 1881, talked about "undeveloped thyroids" but failed to recognize them as independent organs. They were also observed by Kaydi and Masling. After Sandstrœm, these bodies were dealt with by Woelfer; Rogowitz, in 1880; Christiani, in 1893; Lieznska, and Ochner. These authorities considered

them as more or less embryonic thyroidal tissue.

Huerthle recognized that the secretion of the parathyroids is different from the secretion of the thyroid proper.

In 1895, Kohn placed the anatomy, histology, genesis, etc., of these organs on a definite basis. He also pointed out that they were independent organs.

From 1891 until 1897, Gley established the very important functions of these little granules. As soon as the importance of these glands was established, they became the cynosure of many eyes. Those studying them included: Verstraten, Vanderluinden, Vassale, Ginerali, Edmunds, D. A. Welsh, Kohn, Pineles, Erdheim, Mourin, Alquier, MacCallum, Sajous, and Ochner.

Pathologists studying these organs were fewer, but included: Peterson, Benjamin, MacCallum, Ochner, Getzowa, Erdheim, Sajous, etc. The list of therapeutists interested in these glands included: Parhon, Urechie, MacCallum, Voegthin, Beebe, and Sajous.

The man who has done most to bring the thyroid and the parathyroid glands into prominence is Charles E. deM. Sajous, who not only studied both glands intensively, but proved conclusively that there exists a definite relationship between the two systems.

In most animals, the anatomical relationship between the thyroid and parathyroid glands is very intimate. The thyroid is present in all vertebrates but the parathyroids are not discernible below the amphibia.*

Anatomy

The thyroid gland is situated in the neck, in front and at the sides of the trachea. It consists of two lateral lobes connected by a narrow strip called the isthmus. The height of the lateral lobes ranges from 3 cm. to 6 cm. The transverse diameter of the whole organ is 6 cm. to 7 cm. It weighs about 30 Gm. to 40 Gm. (1 oz. to 1½ oz.). It is reddish-yellow in color.

Each lobe is an irregular pyramid in shape. The inner surface is concave and is moulded over the trachea and larynx. At a sharp border, this surface meets the anteroexternal surface. These two surfaces are connected by a third surface called the posterior surface, which faces backward and slightly outward. The isthmus, which connects the lateral lobes below the middle, is situated between the second and third tracheal rings. Its anterior surfaces continue without interruption with the anteroexternal surfaces of the lobes.

The thyroid lies beneath the group of infrahyod muscles from which it is separated by the middle layer of the cervical fascia. The sternomastoid muscle crosses the lower part of the lateral lobes. The inner surface lies against the trachea, the cricoid cartilage, and the lower part of the wings of the thyroid cartilage. It reaches back to the esophagus which it touches on the left, and less often on the right. It may possibly touch the pharynx on one or both sides.

The common carotid is usually behind the gland and the internal jugular beyond it. The inferior thyroid arteries enter the lateral lobes from the inner side and the superior thyroid arteries from the anteroexternal.

The middle cervical sympathetic ganglion is behind the organ; the inférior laryngeal nerves lie at its inner surface, either very close or touching it. The sheath connects the thyroid body very closely to the neighboring tissues. Its connection with the trachea is so intimate that it moves with it. Medium bands to the cricoid and thyroid cartilages are suspensory ligaments.

Structure

In common with other compound alveolar glands, the thyroid possesses no excretory duct and has the peculiar structure of its terminal compartments. A fibroelastic capsule invests it and gives off septa which subdivide the organ into the chief lobules. These lobules are composed of smaller compartments separated by thin partitions of connective tissue.

The acini (about 0.05 to 0.20 mm. in size) have a lining consisting of a single layer of polygonal cells. The basement membrane of the acini is wanting, the cells resting upon a stratum of connective tissue. The epithelia are the source of the secretion that the cells usually contain. Within the cells, there is a variable number of highly refractile granules, especially near the sac.

The blood supply is rich and comes by the superior thyroids from the external carotids, and by the inferior thyroids from the subclavians. The superior thyroid arteries descend to the top of the lateral lobes and ramify over the front of the organ,

*Amphibia are a class of vertebrates forming a transitional group between the fishes and air-breathing animals, usually having gills in the larval and lungs in the adult stage.

sending numerous branches to the interior. The inferior thyroid arteries pass upward behind and enter the organ on its inner surface.

The organ is generously supplied with veins. Emerging from the gland, they form a large plexus beneath the capsule. From the plexus, the blood escapes by three main courses on each side. The superior thyroid veins are double and empty either into the facial or into the internal jugular directly. The middle thyroid vein passes into the internal jugular, having an anastomosis with the pharyngeal nerve plexus. The inferior thyroid veins (usually both present) come from the deeper part of the thyroid and form a plexus in front of the trachea under the middle layer of the cervical fascia and thence proceed into the left innominate.

The lymphatics begin within the glands as perifollicular lymph spaces and then follow the interlobular septa in their path to the exterior where they come together in a superficial plexus; and from there the lymph passes in all directions.

The nerves come mostly from the cervical sympathetic. There are also fibers from the vagus (pneumogastric).

Sometimes accessory thyroids are found. These are small bodies of the same anatomical structure as the mother gland. They are found about the hyoid bone in the medium line, both in front and behind; occasionally above it, and infrequently below it.

The Parathyroid Bodies

These organs are small elliptical masses situated in close apposition to the thyroid. They are 6 to 7 mm. long, 3 to 4 mm. broad, and 1.5 to 2 mm. thick. They are always separated from the thyroid by a capsule. They usually exist as two pairs on either side of the thyroid. The superior pair are, as a general rule, situated above the level of the lower edge of the cricoid cartilage. They lie against the posterior surface of the lateral lobes, between the middle and inner borders.

The upper two are deeply imbedded in thyroidal tissue, while the lower two are but loosely connected with the thyroid. The inferior pair are lower and more anteriorly than their sisters. Sometimes they lie against the side of the trachea near the end of the rings under the lower part of the thyroid lobes. The position of these little bodies, however, is not constant.

Each organ is covered with a thin fibrous capsule and subdivides into ill-defined lobules between which are a few delicate septa supporting the blood vessels.

The gland tissue consists of closely placed polygon epithelial cells. The cells possess round nuclei which contain chromaffin venticula.

The blood supply of the parathyroids is quite rich and forms sinus-like capillaries which are in close connection with the epithelial cells. The nerve supply is very rich and passes both to the vessels and secretory cells.

The arteries distributed to the parathyroids are derived from the branches supplying the thyroid. The parathyroids bear a strong resemblance in structure to the immature and undeveloped thyroid gland.

Embryology of the Thyroid

The thyroid is developed from an unpaired medium "anlange".[1] This, anlange, irregular in form, appears in embryos as an epithelial outgrowth from the anterior wall of the primitive pharynx in the region of the second visceral arch, and therefore is in close relationship to the tongue. It at first possesses a narrow lumen, but soon loses its cavity and becomes a solid pyriform mass. The position of the primary outgrowth is later indicated by the depression on the tongue, the foramen cæcum.

The histogenesis of the thyroid is divided into two stages. In the first, there are numerous cylindrical epithelial cords from which lateral branches develop. The second stage is distinguished by the infusion of these epithelial cords into network, the meshes of which are occupied by vascular mesoblastic tissue. About the third fetal month, the epithelial reticulum breaks up into masses corresponding to the follicles of the mature thyroid. These gradually acquire a lumen around which the cells become arranged so as to constitute the epithelial lining of the compartments into which the colloid substance is later secreted. This gland is then hypoblastic in origin.

In other words, the thyroid is a development of the entoderm lining of the floor of the pharynx. First, it is represented by a solid column of cells which soon divide at the lower end into two later portions. These lateral portions subdivide several times and finally form hollow tubes lined with epithe-

[1] "Anlange" is also called proton or primordium and is the first trace of any part or organ in the embryo.

lia. These, still later, become cut up to form the vesicles characteristic of the gland.

Development of the Parathyroids

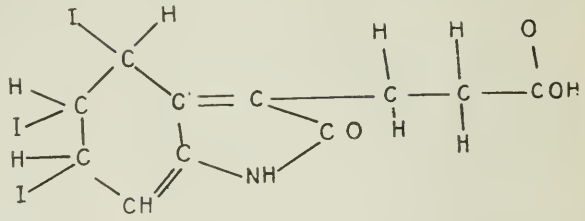
The parathyroids are an outgrowth of the third and fourth branchial pouches. The thyroid is an outgrowth of the entoderm between the first and second branchial pouches.

Chemistry of the Thyroid

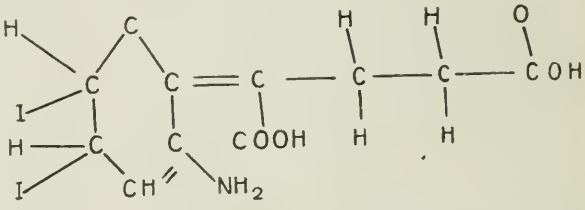
The chemical information we possess concerning the thyroid and parathyroid groups is rather limited. There has been considerable discussion concerning the active principle of the colloid material and its specific chemical action. It is now generally conceded, however, that a substance called variously thyreoglobin, thyroxin, and thyroiodase is the active constituent of the thyroid secretion. It would be worth while to examine this substance, obscure as it is, a little more closely as, naturally, the function of the thyroid depends on the active secretion which it produces.

Thyreoglobin is the iodine-containing constituent of the gland and is the principal constituent of the colloid matter. It may be extracted by drying the powdered gland at room temperature. First, however, the gland should be separated from connective tissue and the dried gland extracted with gasoline to remove lipins. The gasoline is removed by evaporation. The globin can then be extracted with salt solution. To purify the extract, it is precipitated with $(NH_4)_2\ SO_4$. It is a white, amorphous powder. The iodine content ranges from 0.34 to 1.00 percent.

The active constituent of the gland is also called "Thyroxin." It is trihydro-triiodo-oxyindole-propionic acid. The formula is:



Hydrolysis changes the formula to the open ring form which can be represented as follows:



The physiological power may, in a measure, be due to the fact that under certain conditions it can open the ring and under others close it. The compound is rendered inactive if the opening and closing property is prevented through acetylization.

Besides this substance, the gland contains: Lipins, nucleinic acid, guanylic acid, cholesterol, choline, albumins, and extractives.

By acid hydrolysis from thyroxin, iodothyrin is formed. This is a brownish, amorphous powder containing 2 to 14 percent of iodine. It gives no protein reaction. It is soluble in dilute alkalies but not in weak acids; and looks and behaves something like melanin.

[*To be continued*]

THERE are men so constituted that they would destroy the very temple of liberty in order that they might realize a consummation of their extreme views.—Senator James A. Reed.

The Semi-Centennial of the American Public-Health Association

Special Article

EDITORIAL COMMENT.—This interesting article was prepared for us by the Associate Editor of the "American Journal of Public Health", and contains a splendid review of the public-health work accomplished in our country, before and since the foundation of the American Public-Health Association. Unfortunately, only a portion of the material supplied by the author could be utilized here, for lack of space. However, we refer our readers to another article, appearing on page 794 of this issue and which contains further historical and other information.

In addition to the biographic notes on Doctor Stephen Smith, the venerable founder and first president of the Association, who is still living, brief biographies had been presented of those former presidents who have passed over to the great majority. These had to be omitted. However, the information, and much more, can easily be found in the forthcoming Jubilee Volume of the Association, which we hope to review in the next issue of CLINICAL MEDICINE.

WE are indebted to Dr. Mazyck P. Ravenel for the following outline history of the American Public Health Association, of which he is president, and for the equally brief and necessarily inadequate biographical notes on the revered founder of the association, Dr. Stephen Smith.

It seems most fitting that, on this, the fiftieth anniversary meeting of the American Public Health Association, we should pause to pay homage to the lives and accomplishments of those who guided the course of our association in its early years and won for it the proud place it now occupies as an instrument for public good. We may well review our work and take stock of our achievements in an earnest effort to determine how far we have justified our existence and attained our ideals.

Dr. Stephen Smith, founder and first president of the American Public Health Association, whose approaching centennial and the semi-centennial of the Association will be celebrated in New York City, November 14-18, 1921.

The Association "had its origin in that natural desire which thinkers and workers in the same fields, whether of business or philanthropy or the administration of civil trusts, have for mutual council, advice and cooperation." (Smith).

A preliminary meeting attended by Drs. E. M. Snow, Providence, R. I., chairman; J. H. Rauch, Chicago, Ill., J. Ordronaux, Roslyn, N. Y., Stephen Smith, N. Y., E. H. Jones, N. Y., C. C. Cox, Washington, D. C., and Carl Pfeiffer, N. Y., architect, was held on April 18, 1872, at 301 Mott street, New York, at which an informal discussion on the formation of a national sanitary association took place. A larger and more formal gathering was decided upon, and, on the evening of the same day, these gentlemen, with the exception of Dr. Snow and the addition of Doctors Elisha Harris and Moreau Morris, New York, and Heber Smith of the Marine Hospital Service, met

at the New York Hotel. At this meeting, a Committee on Permanent Organization was appointed, with Dr. Stephen Smith as chairman. This committee issued a call for the first regular meeting held at Long Branch, New Jersey, September 12, 1872, at which time a constitution was adopted and Dr. Stephen Smith elected the first president.

Up to this time, no public health organization existed on the American continent. In so far as it existed at all, public-health practice was empirical and lacked uniformity.

In his classic address before the International Medical Congress, in 1876, Dr. Henry I. Bowditch states that National Sanitary Conventions, so called, were held in Philadelphia (1857), Baltimore (1858), New York (1859), and in Baltimore (1860), but ceased with the outbreak of the Civil War.

Only three states, Massachusetts (1869), California and Virginia (1871), and the District of Columbia (1870), had established boards of health prior to 1872, and only twelve up to 1876, the date of Dr. Bowditch's survey. In only two states was registration of births, deaths and marriages claimed to be made with any degree of accuracy, though twenty had passed some laws concerning registration. In 1873, 134 cities in the United States had some form of health board.

In England, three epidemics of cholera (in 1831, 1849 and 1854) had brought about the appointment of commissions of investigation. In 1848, following the report of a royal commission appointed to investigate outbreaks of diseases in large towns, and to recommend measures for the improvement of public health, comprehensive sanitary acts were adopted, a general board of health was established and medical officers of health were appointed.

In 1869, the famous Royal Sanitary Commission was appointed, and proposed for the first time a ministry of health. This failed to carry, but the Local Government Board was created in 1871. An epidemic of Asiatic cholera, in 1832, resulted in a Provincial Act for the appointment of Local Boards of Health and, in 1849, this act was amended to provide for a central board of health, to continue during the pleasure of the legislature.

Although we had not advanced so far in America, the leaven was working. In 1850, there was published the "Report on the Sanitary Condition of Massachusetts," written largely, if not wholly, by a layman, Lemuel Shattuck. It was a remarkable paper, which suggested the appointment of a state board of health, and so well did it outline the duties and functions of such a board that, when the board was finally appointed, in 1869, the secretary, Dr. Derby, found his inspiration and support in the pages written twenty years before. In 1870, Dr. Derby wrote the first paper ever published in this country under the direction of a permanent body appointed by state authority for the investigation of diseases and instructive of the public concerning them.

Such was the condition of things in the English-speaking countries when our association was born.

Some Historical Facts

In France, Pasteur was revolutionizing all former conceptions of disease by his discoveries and the formulation of new theories.

In August and December of 1857, Pasteur published his first papers on lactic-acid fermentation being caused by living organisms.

Discussions on spontaneous generation followed and persisted for several years. The proofs against it, supplied by Pasteur, settled the dispute for all time.

In 1865, he took up the study of silkworm disease and soon brought it under control by methods based on his new discoveries, his experiments adding much to the knowledge already gained, and confirming the theories advanced.

In England, Lister, a surgeon, began in 1867 to put into practice the ideas he had gained as a student of Pasteur and was able to report in 1869 that thirty-four out of forty patients who had suffered amputations had survived. Such good results were unheard of at that time, and were attributed by him entirely to antiseptic surgery, which was the practical application of Pasteur's theories to surgical practice.

In 1870 to 1872, Pasteur pursued his studies on the fermentation of beer and elaborated what is now called "pasteurization" for the purpose of correcting unhealthy fermentations.

The Time was Ripe

No more opportune time could have been chosen for the formation of our own association. The art of medicine was becoming

the science of medicine, and modern preventive medicine was being born. The discoveries of Pasteur put an end to superstition and empiricism and substituted the bedrock of science as a foundation on which has been erected the wonderful structure of medicine as it exists today.

Although begun and apparently designed largely as an association of administrative officers, it was inevitable that others should be attracted by the ranks. The science of bacteriology had come into existence as a result of Pasteur's work, and the laboratory soon became a prime factor in the study and prevention of disease. The germ of anthrax had been seen by Rayer and Davaine in 1850; Delafond (1860) had shown its power of vegetation, and Davaine (1863) its causative relation to the disease, while Koch (1876) obtained pure cultures on artificial media and demonstrated the spores. Pasteur completed the demonstration, making anthrax the first disease in which the etiological relation of a germ to a disease was proved.

In 1877, the bacillus of malignant edema was discovered by Pasteur; in 1879, the germ of chicken cholera by Pasteur, and the gonococcus by Neisser. In 1880, the pneumococcus was discovered by Pasteur and by Sternberg independently, and the typhoid bacillus by Eberth.

Of even greater significance, perhaps, was the announcement in this year, by Pasteur, of a bacterial vaccine against chicken cholera, followed (1881) by his epoch-making demonstration of vaccination against anthrax. This year brought also the discoveries of the pus-forming organisms, the staphylococcus and streptococcus, knowledge of which has revolutionized modern surgery and robbed maternity of its chief dangers. The year 1882 will always be notable for the discovery of the tubercle bacillus, by Koch. Loeffler and Schütz isolated the germ of glanders in this year, also. The year 1883 saw the discovery of the spirillum of Asiatic cholera, by Koch, and the bacillus of diphtheria, by Klebs; while 1884 was marked by two great discoveries of great public-health significance, namely, the isolation of the diphtheria bacillus, by Loeffler, and of the typhoid bacillus by Gaffky.

Bacteriology Influences Views on Disease

The influence of the new science on public health ideas and practice was paramount. In the pages of our Transactions, one may find a veritable history of bacteriology, with its practical application to public health, and, while the earlier discoveries came largely from abroad, our association was not without representatives, notably in the person of Dr. George N. Sternberg, our president in 1886.

From its inception, the Association has taken a broad view of its duties to the public and has established an enviable record for public service. At the third annual meeting, held in Philadelphia (1874), the following resolution was adopted:

> That a Committee consisting of a member of this Association from each state and territory of the Union. . . . be appointed to petition Congress, at its next session, to institute a bureau of health, to be located at Washington City, with a branch at the seat of each state and territorial government.
>
> That this Association urge upon the governor and legislature of each and every state in the Union the importance of enacting laws creating state boards of health and providing adequately for sanitary administration.

Five years later, in 1879, under the impending danger of a yellow-fever epidemic, Congress created a National Board of Health, which functioned for the term of four years provided for in the act creating it, but was allowed to pass out of existence by the next Congress, in spite of petitions showing the need of such a body, the excellent results achieved during its short life, and the importance of its continuance.[1]

We have been more successful with the states, and there is now no state in the Union without some form of a health department.

Canada and Mexico Join

With the growth of the Association, it became increasingly evident that its objects could be best attained by consultation and cooperation with our neighbors whose problems were much the same as our own. So, at the St. Louis meeting in 1884, Canada was invited to join with us, and became a constituent member—without question, the most important measure taken since the formation of the Association.

At the Brooklyn meeting, in 1889, the secretary was instructed to communicate with the health authorities of Mexico, Cen-

[1] A review of the "Operations of the National Board of Health" is given in Volume VIII, page 71, of our Transactions by Dr. J. L. Cabell, President.

tral American, Cuba and Colombia, and invite these countries to cooperate in the work of the Association. Mexico alone responded, accepting the invitation, and, at the Charleston meeting, in 1890, we had the honor of entertaining Dr. Domingo Orvananos and Professor José L. Gomez as the official representatives of the Superior Board of Health of Mexico. In 1892, at the meeting in the City of Mexico, the amendment to the Constitution proposed in 1891 was adopted, and Mexico came into the Association fully. These two sister countries have added greatly to our strength, and have given us many of our distinguished members and officers.

In 1902, at New Orleans, the newly formed Republic of Cuba was invited to associate with us, and, for the first time, practically the whole of North America was embraced in our membership, making us in fact, as in name, the American Public Health Association.

Sections and Publications

In 1899, the Section on Bacteriology and Chemistry was organized. This section has always devoted much attention to the standardization and improvement of laboratory methods, and its publications are regarded as official throughout the countries of North America.

The scope of public health was rapidly widening during these years, and the growth of the Association kept pace with it. New members with new points of view were constantly joining our ranks, and specialism was inevitable. In 1908, two new sections were organized: Vital Statistics and Public Health Administration. Three years later, it became necessary to specialize further, and again, in 1911, two new sections were organized, namely, Sociological and Sanitary Engineering. In 1914, the Section on Industrial Hygiene was formed, and that on Foods and Drugs in 1917. If time and space permitted, it would be most interesting to review the genesis of all the sections. They were preceded by special committees and reports, which gave evidence of the growth of the public-health idea, as well as the sense of duty to the public which has always actuated our Association. All sections were formed in response to demands which could not be put aside. At present, there are requests before us for the formation of still other sections, most of which have a basis of valid claims on our attention. With the further growth of the Association, we must soon expect to see the number of sections increased.

There are 37 volumes of our transactions, reports and papers under the original title. Of these, Volumes XXXIV and XXXV are reprinted from the *American Journal of Public Hygiene,* and XXXVI and XXXVII from the Journal of our Association, which continued the *American Journal of Public Hygiene.* During the first twenty-five years of our existence, we published twenty-two volumes containing 695 papers and 9,117 pages of reading matter. From 1897 to 1911, when the Journal was begun, 13 volumes were issued, containing 827 papers and 6,826 pages. The ten volumes of the Journal completed to date (1911 to 1920) contain 1,106 articles, 136 reports, 229 editorials, and 11,379 pages, making a total of 2,993 articles and 27,322 pages of literature on health matters, in which every phase of the subject has been discussed by specialists and experts. These pages are not only a mine of information but also a good history of the public health movement during the past fifty years. The reports of committees and papers presented leave no matter of interest untouched. Our general meetings have been the forum before which many epoch-making discoveries have been presented or discussed. The volumes are in demand for libraries, and it is now very difficult to obtain full sets. A review of them would be most interesting and proper in this address, but the several fifty-year histories on public health topics which are to be presented at the semi-centennial meeting and published in our Jubilee Volume will doubtless cover much of the same ground, so that only a few points will be noted here.

For many years, the need of a medium for frequent communication between workers in the field of public health had been felt. Neither the annual volume, the quarterly publication, nor the affiliation with the *American Journal of Public Hygiene* had filled this need satisfactorily. At the Milwaukee meeting, in 1910, a resolution was adopted creating a Committee on Journal, authorizing and directing this committee to provide for the publication of a monthly journal. The first number was issued in January, 1911, under the title: *Journal of the American Public Health Association.*

In 1912, the name was changed to *American Journal of Public Health,* which it still retains. From the beginning, it has taken a leading position among scientific journals, and the premier place among those devoted to health. Its value to the Association can not be estimated, keeping our members in touch with the organization during the intervals between the annual meetings, and giving them during the year information of the new and important developments in Public Health. Since its foundation, it has replaced the annual volume for the publication of reports and papers.

Since March, 1919, a monthly "News Letter" has been issued. To date 112,774 copies have been distributed.

The Association has from its inception striven for the adoption of uniform practices and standard methods. It has for many years had various committees at work constantly trying out methods and selecting the best.

The publication of these findings in permanent form is regarded by many as one of the most useful activities of the Association.

The two most important publications so far issued by the Association are "Standard Methods, for the Bacteriological Examination of Milk", first Edition, 1910; second, 1916; third, 1920. The third edition was revised in conjunction with committees from the American Dairy Science Association, International Association of Dairy and Milk Inspectors, and members of committees from the Society of American Bacteriologists and American Association of Medical Milk Commissions.

"Standard Methods for the Examination of Water and Sewage." The predecessor and really the first edition of this publication was the report of the committee appointed in 1895 to draw up procedures for the uniform study of bacteria, adopted at the Philadelphia meeting in 1897 and published in Volume XXIII (1898) of our Transactions. In 1899, a committee was appointed with the view of extending the standard procedures to include not only determination of species of bacteria, but all other lines of investigation involved in the analysis of water. Progress reports were made in 1900, 1901, and 1902, two of which were published in our Transactions and one in *Science.* The final report was published in 1905, as Part II, Volume XXX of our Transactions. Revision has been constant, and other editions have appeared in 1912, 1917, and 1920. The fourth edition was revised by committees of the American Public Health Association, American Chemical Society, and referees of the Association of Official Agricultural Chemists.

Other noteworthy publications are:

"Standard Methods for the Examination of Air"—first report, 1909; second, 1912; third, 1916.

"Pasteurization of Milk," 1920. Report of Committee on Milk Supply of the Sanitary Engineering Section.

"Model Health Code for Cities," 1921. Report of Committee on Model Health Legislation.

"Standardization of Public Health Training," 1921. Report of the Committee of Sixteen.

"An Index for Public Health Literature."

"Health Quotations."

Dr. Stephen Smith

In bringing this article to a close, it would be a grateful task to tell something of the history of those who have contributed conspicuously to the success of the Association. It has seemed possible, however, to do this only in the case of Dr. Stephen Smith, our first president.

It is should be felt by any that an invidious distinction has been made, they are reminded that

"in science, at least, great names are landmarks; and the owners of these names have traversed and gleaned in fields where many a devoted laborer has delved and sown, and pathetically sweated blood in his altruistic zeal. In science, at least, no man works in vain. Full many a one, worthy of an eulogy, has given his whole life to establishing a fact or indeed only an item to a fact; his work unrealized; ridicule and even persecution ofttimes his only compensation, throughout perhaps in the meanest destitution. Yet, his life and his work have been absolutely essential to the building of a mighty fabric." (Huber.)

In the Jubilee Volume, Doctor Ravenal says: "The study of the lives of our past presidents has been an inspiration, but has brought home to me a keen sense of my unworthiness to succeed them and of my inability to fill the office once held by them. I have many times wished that this tribute might have been written by a more facile pen, and one capable of paying adequate homage to their lives and accomplishments. Whatever may be lacking in expression I trust is made up for by the love and reverence which has prompted my hand."

Stephen Smith (1823) was the first pres-

ident of the American Public Health Association, and to him fell the arduous task of organizing the newly-formed Association and of guiding its early steps. He was twice elected to succeed himself, and retired of his own volition.

Dr. Smith was born on a farm in Onondaga County, New York. Early in life, he selected medicine as his profession, and began his studies while still a student in high school. He entered the College of Physicians and Surgeons in New York in 1850, and graduated in 1851. In 1854, he became a surgical and clinical teacher at Bellevue, continuing this work until 1891. He was also Professor of Anatomy in Bellevue Hospital Medical College from 1863 to 1870.

In considering Dr. Smith's public service, one wonders at the extent of the work accomplished.

In 1864, Dr. Smith was made a member of the "Council of Hygiene" of New York City. The investigations of the Council were organized and supervised by him, and its report, in 1865, so impressed and aroused the public by its revelations as to bring about the act of legislature, April 21, 1866, creating the Metropolitan Board of Health endowed with almost autocratic powers. Dr. Smith was appointed a commissioner of the board by Governor Fenton, and through successive reappointments remained a commissioner until 1875.

Few medical men have ever even approached Dr. Smith in the number of honors paid to him. Presidents, governors and mayors have repeatedly appointed him to important posts, or sent him on missions.

Dr. Smith began to write early in his career, and has been a fertile contributor to medical literature. From 1853 to 1860, he was editor of the *New York Journal of Medicine,* and from 1860 to 1964 editor of the *American Medical Times.* Early in the Civil War, he published a "Handbook on Surgical Operations," of which 15,000 copies were sold. In 1887, his "Principles and Practice of Operating Surgery" appeared and ran through several editions as a standard text. His last book, "The City That Was," a description of the shockingly insanitary conditions prevailing in New York before the creation of the Metropolitan Board of Health, was printed in 1911, and is being reprinted in honor of the semicentennial.

To the members of the American Public Health Association, he is dear as our founder and first president. The Association is under a debt to him which can never be forgotten. To him it owes its existence and the formulation of the principles which have guided it for fifty years and made it a great power for good to the people of the countries it embraces.

IT may be only small injustice that a child can be exposed to; but the child is small, and its world is small and its rocking horse stands as many hands high, according to scale as a big-boned Irish hunter.—Charles Dickens. "Great Expectations."

What Others are Doing

THE PREVENTION AND TREATMENT OF TUBERCULOSIS

In his London letter, the correspondent of the *New York Medical Journal* (Aug. 3, p. 184) refers to the annual report for 1919 of Dr. Sidney Barwise as medical officer of health for the county of Derby, in which reference is made to the change of opinion concerning the origin of phthisis. The socalled inhalation theory explaining the etiology of tuberculous disease has recently yielded to the view presented, for instance, by Dr. F. M. Pottenger, who described tuberculosis as primarily a disease of the lymphatic system. There is a considerable amount of evidence in favor of the view that the tubercle bacillus gains access to the body through the tonsils or intestines. [Pottenger confirmed the opinion expressed at the Washington Tuberculosis Congress, in 1908, by Julius Bartel, of Vienna, and supported since then by numerous investigators.—Ed.] Walsham, in 1903, called attention to the tonsils and the cervical glands as a common portal of entry. Beatty and Carnegie Dickson believed that the most frequent mode of entry in the human subject, except in the case of young children, is by way of the tonsils and perhaps in some cases by way of the teeth. [Incidentally, there is here a potent caution against the indiscriminate removal of tonsils, especially in young children, against which Pottenger also warns in his two-volume work on "Clinical Tuberculosis" (Vol. 2, p 506.)—Ed.]

The bacilli pass from the tonsils to the cervical glands and into the lungs by way of the peribronchial lymphatics. From the root of the lung, the path of infection may be outward and upward, involving the apex or the upper lobe, or it may spread fanwise and involve the pleura. There is now fairly general agreement with Sanarelli's views that man only survives by having acquired immunity as a result of a mild attack in early life. Support is, of course, given to this view by the large proportion of bodies showing either active or healed manifestations of the disease at postmortem examinations made upon persons who have died from other causes.

Among the practical suggestions made by Doctor Barwise to prevent the spread of tuberculosis are, better ventilation in houses, better facilities for washing, and better places for storage of food. The efforts of health visitors should be concentrated on preventing infection during the first few years of life. The child should not be allowed to crawl on the kitchen hearth rug, but have a clean, washable crawling rug, and its hands and face must be washed before each meal. If infected during the first year of life, the result is almost always fatal, and children should be removed from tuberculous mothers, as Bang, of Copenhagen removed the calves from tuberculous cows. Moreover the campaign against tuberculosis in cattle must be continued and, until milk is available from certified tubercle-free cows, that given to infants under two years of age must be sterilized. It must be remembered, however, that the child has to acquire immunity. It can not always be kept wrapped in cotton wool. Doctor Barwise, therefore, thinks that, after it has reached the age of two years, it should take its risk in acquiring immunity through a localized tuberculosis by allowing it occasional small doses of the ordinary milk of commerce.

[Doctor Barwise's conclusion recalls a suggestion made almost twenty years ago by von Behring that children should be fed bacillary milk so as to produce a mild infection with bovine tubercle bacilli to which an immunity might be developed more readily. It had even then been recognized that recovery from tuberculous disease is possible only through the development of an immunity. As a corollary, the view was gaining ground that all persons who are immune to tuberculosis are so only by virtue of having passed through an attack of this disease, which

may have been so mild as to escape clinical recognition. This idea is supported by the almost universal response to the cutaneous tuberculin test, according to von Pirquet, which designates the existence of an "allergy" with regard to the tubercle bacillus.

The net result of modern tuberculosis investigations is that the almost hopeless fear of tuberculosis infection has been allayed, it being recognized that the successful passing through the mild infection is necessary for an immunity.

Of course, it would be foolish to reason from this that one should deliberately expose children to tubercle-bacillus infection. Such an infection takes place in the great majority of cases in the ordinary epidemiological course of events, usually during the first year of school life, it being virtually impossible to avoid it. The point is that there is no cause for indulging in any hysterical excitement and foolish extremes in measures purporting to avoid infection.

As a matter of fact, the best way to avoid a bacterial danger, at least in the case of tubercle-bacillus infection, is not by running away from it but, rather, by putting the organism into such an excellent condition of health as to bring up the response to the highest point possible in order that a specific immunity may be established promptly on infection having occurred. In the present writer's personal opinion, the development of such immunity is greatly favored by the deliberate active immunization of children and young adults by means of a suitable tubercle-bacillus vaccine.]

TREATMENT OF GONORRHEA AND ITS COMPLICATIONS WITH VACCINES

Dr. Warren Townsend (*Jour. Urol.*, April) concludes, from a review of the literature in point, that gonococcus vaccines are of negative value in the treatment of acute gonorrhea.

However, in gonorrheal complications, vaccine therapy is of value when considered in the light of an adjuvant to standardized treatment and not as a specific *per se*.

This sounds very impressive and, in fact, highly, ultrascientific. Yet, while the conclusion is perfectly correct, the implication contained in it is nonexistent. No physician in his senses would dream of considering gonococcus vaccine therapy otherwise than in the light of an adjuvant to local and general treatment. We doubt whether anybody could be so naively optimistic as to resort to gonococcus vaccine as "a specific per se." That being the case, it isn't quite clear why four perfectly good pages of text were used up for the purpose of pointing an entirely self-evident lesson. The author doesn't even give any personal experiences, contenting himself with citing seven references from literature from which he draws his conclusions.

Fortunately, these conclusions are self-evident; so, after all, we need have no quarrel with the author.

RESULTS OF THE WASSERMANN TEST ON 1518 MEN AT SAN QUENTIN PRISON

According to G. W. Nagel, (*Calif. State Jour. of Med.*, Vol. XIX, No. 5, May, 1921), the Wassermann test was performed on 1,518 men, of which 166, or 10.93 per cent, showed some luetic involvement. The following are some data obtained:

	Percent
Married	39.75
Single	66.25
Admitted a venereal disease	66.27
Denied a venereal disease	33.73
Gonorrhea only	32.53
Syphilis only	5.42
Both gonorrhea and syphilis	27.71
Never received antisyphilitic treatment	96.99

Of the 166 cases, 139 men received treatment at San Quentin. The course of treatment consisted of an injection of arsenobenzol every four to eight weeks. In the interim, the patient receives mercury rubs nightly for six days followed by a week of rest. This procedure is continued as long as signs of lues are present or until symptoms of mercurialism appear.

Up to date, 77.53 percent have shown marked signs of improvement. A few cases remain "Wassermann fast" in spite of prolonged treatment. There is no adequate explanation for such occurrences. In this connection, it may be noted that the reliability of the Wassermann test as an indication of the patient's condition has been seriously questioned by some, it being claimed that certain cases, though actually cured, still give positive reactions. Another point of interest is that 22.3 percent of those who showed improvement first gave a negative reaction followed by a positive one

again, before the final negative or at least a reduced Wassermann resulted.

Conclusions

1. The Wassermann test should be made a routine procedure in all complete medical examinations.
2. A negative history and physical examination does not preclude the possibility of lues being present.
3. The treatment as outlined above is an effective and practically safe method of bringing about a negative Wassermann reaction.
4. Five or six injections, accompanied by mercury rubs extending over a period of from one to two years are usually sufficient to bring about the desired result.
5. A small percentage of cases show no improvement in spite of prolonged treatment.

SPAHLINGER'S SERUM FOR TUBERCULOSIS

In a paragraph appearing in the *Observer* of July 10, and purporting to come from a special correspondent at Geneva, it is stated that three Governments have signed contracts with Spahlinger for the erection of laboratories for the manufacture of his serum; the British Government, however, is not one of these, its ministry of health regarding the serum as a secret remedy. The *Observer* correspondent adds that several well-known British medical men have visited Spahlinger's laboratory at Geneva (the names of two prominent London physicians are given) who have assured this correspondent that the serum is not a secret remedy in the usual acceptation of the term. The serum requires two years for its preparation, and at present the supply is hopelessly unequal to the demand, as Spahlinger has only a small laboratory. Spahlinger will not at present divulge the process, the writer says, as he is anxious to avoid its exploitation by commercial firms who might make an unsatisfactory serum which would bring discredit on the treatment. He has already refused a tempting offer from a well known firm, as he wants the manufacture to be only in Government hands. So far, it is said, Spahlinger has given such serum as is available free of any charge.—[*The Prescriber,* Aug.]

SAFE LOCAL ANESTHESIA

Maxeiner (*Jour.-Lancet,* June 15, 1921) considers procaine (or "novocaine," as this agent was known before the World War) the safest local anesthetic available to the surgeon today. When properly administered, it may be given almost ad libitum.

Infiltration is by far the simplest way of preparing tissues for the knife and is almost 100 percent successful in competent hands. The author says, he has repeatedly opened the abdomen in six minutes, after infiltration.

He warns against intravenous injection; this being highly dangerous. As to adrenalin, while it adds to the duration of anesthesia by limiting absorption of the anesthetic, it may prove dangerous in the presence of a terminal circulation.

TONSILLECTOMY UNDER LOCAL ANESTHESIA

Cowley (*Kentucky Med. Jour.* Aug., 1921) says that a neater and more perfect operation for tonsillectomy can be done under local than under general anesthesia. One has the patient under better control than is possible under general anesthesia; there is less bleeding; and, as the fossæ can be inspected to better advantage, it is possible to dissect with greater exactness and certainty.

With procaine, the operation can be done on nearly all patients without pain. About the only exceptions are patients with old abscess cavities back of the tonsil.

In certain other patients, there is an apprehensive fear of the operation which is almost as distressing as is pain itself. Much of this disappears when it becomes known that neither ether nor chloroform are to be used, and that the patient will not be "put to sleep." For the rest, a dose of hyoscine-morphine-cactin will eliminate the nervous apprehension in most instances. The author gives it to all his patients, half an hour before the operation.

His conclusion is, that an operation under a local anesthetic (procaine) is usually safer, pleasanter than and in every respect preferable to general anesthesia.

TREATING BURNS

Horan (*Ill. State Med. Jour.*, Aug., 1921) recounts the many agents employed in the treatment of burns. Among these, and one of the most frequently used of local applications, is carron oil. It does allay pain in a degree but is a filthy preparation and its

use is apt to be followed by unnecessary pus formation.

In his experience, dichloramine-T with or without parresine has proved most satisfactory. With this agent (a new synthetic chlorine antiseptic in a heavy paraffin oil, introduced by Dakin), he says, he has treated many severe cases without losing a patient and without infection setting in.

The entire burned area is sprayed with a 2-percent solution, followed or not, as circumstances determine, by surface applications of parresine (a wax-eucalyptol mixture). In very severe cases, or when there is extensive destruction of tissue, he prefers to apply gauze compresses soaked in dichloramine-T, to the parts affected.

The great advantage that this agent has over others is, that it is highly germicidal and by reason of its oily base permits the dressing to be changed without unduly distressing the patient. After several dressings and sprayings, no infection having appeared but granulations showing, the author sometimes continues with vaseline compresses: 91 parts vaseline, 6 parts paraffin and 3 parts resin. When necessary, he does skin grafting by the Davis pinprick method, after ascertaining by the taking of bacterial counts that the surface is surgically sterile.

ACRIFLAVINE PENETRABILITY

Dr. Ernest Schwartz, assistant attending surgeon at the Cincinnati General Hospital, discusses the question as to the power of penetration of acriflavine, in the July number of the *Cincinnati Journal of Medicine*.

Acriflavine penetrates, whereas silver nitrate, potassium permanganate and other prior agents do not; instead, by precipitating the albumins of the tissues, they build a wall behind which the gonococcus goes on thriving merrily.

Acriflavine, he adds, has established a sure place in the armamentarium of the urologist.

BENZYL BENZOATE IN HIGH BLOOD PRESSURE

Several French physicans, among them Laubrey and Mongeot (*Amer. Med.*, July, 1921) extol the value of benzyl benzoate in high blood pressure cases. "Benzyl Benzoate," say these physicians, "should be ranked among our resources for this condition, giving surprising results sometimes, rarely negligible, never harmful, useful to alternate or combine with other drugs."

In this country, the drug has been praised in like manner. Also, it has been put down by some others as being worthless. But, in view of the favorable reports, and the paucity of remedies directly useful in these cases, benzyl benzoate is indubitably worthy of a trial.

THE BEST ARSENIC PREPARATION

Sodium cacodylate is a great and meritorious remedy; perhaps the best of all arsenic preparations for general use where this remedy is indicated.

A reference to it appeared in *Public Health Reports* for August 19, 1921. This is the official mouthpiece of the U. S. Public Health Service, Washington. Dr. Roth, pharmacologist in the Hygienic Laboratory, recalls that it was John B. Murphy, of Chicago, who first saw its possibilities. Just after Ehrlich, in 1910, announced the value of salvarsan in syphilis, he tried sodium cacodylate for this disease, and was surprised at its excellent work in the healing of primary chancres and other ulcerations. Since then, this salt has justly become popular, not so much as an antisyphilitic but as a remedy in malaria, pellagra, anemia, psoriasis and other chronic skin diseases.

Why is it better than other forms of arsenic? Because it is better borne. Why better borne? Because it is reduced or broken down more slowly within the organism than are other arsenic salts.

THE pursuit of knowledge in every direction is strewn with the records of false scents which have been followed for a time, merely to be abandoned when their falsity was at last recognized.—Earl of Cromer, in Introduction to Stephen Paget: "For and Against Experiments on Animals."

lay public. It will be the largest affair of its kind ever held in New York City. It will be conducted under the joint auspices of the Department of Health of the City of New York and the American Public Health Association. Already, allotments of space indicate that at least two entire floors of the Grand Central Palace will be occupied by exhibitors. The exhibits will include those of educational and philanthropic organizations and those of commercial houses producing approved articles of health value.

Every legitimate means will be utilized to promote attendance at the Exposition, for this will be the most effective way in which the message of Health Fortnight may be brought to the public. The fact that a similar health exposition, held in Chicago a year ago, drew an attendance of over one hundred thousand indicates the extent to which this form of popular education may be carried. Naturally, in New York with its larger population, a proportionately greater attendance is expected at the Exposition. The profits from the sale of tickets, after the cost of the Exposition and the Convention are defrayed, will be devoted to establishing nutritional clinics for the benefit of undernourished children. In this connection, Dr. Royal S. Copeland, Health Commissioner of the City of New York, will present a series of educational exhibits in which instruction in the feeding of children will be featured. Dr. Copeland is Chairman of the Exposition; A. W. Hedrich of the American Public Health Association is Secretary and Dr. C. E. North, Treasurer and General Manager.

The Health Institute from November 8-11, will present to visitors to the Convention an unusual opportunity to see the operations of established methods applied to various phases of public health work. About forty demonstrations have been planned. The thoroughness of the program may be gathered from the fact that the Institute is sponsored by the American Public Health Association, the Health Department of the City of New York, the New York State Department of Health, the U. S. Public Health Service, the National Health Council, and the Committee on Public Health of the New York Academy of Medicine, with the cooperation of approximately one hundred other organizations. The Chairman of the committee in charge is Dr. W. A. Evans. The Director of the Institute is Dr. D. B. Armstrong of the National Health Council.

Following the week of the Institute and the observance of Health Sunday, will come the opening of the scientific sessions, the meetings of the American Public Health Association in celebration of its semi-centennial. The sessions will begin on November 14, and the headquarters will be at the Hotel Astor, Broadway and 44th Street.

The scope of the meetings is indicated by their division into the following: General Sessions, Public Health Administration, Child Hygiene, Public Health Publicity and Education, Laboratory Section, Vital Statistics Section, Industrial Hygiene Section, and Food and Drug Section. Speakers before these sections will include health workers of world-wide repute.

It is almost unprecedented to find an organization celebrating its semi-centennial, while its founder is on the verge of marking his own centennial. This is the case, however, with the American Public Health Association, for its founder, Dr. Stephen Smith, although in his 99th year, is still active and will participate in the meeting. A banquet will be held in Dr. Smith's honor as a part of the semi-centennial celebration.

As a permanent souvenir of the semi-centennial and as a record of the work accomplished, a Jubilee Historical Volume, entitled, "Fifty Years of Public Health", will be ready for distribution during Health Fortnight. Although, as the title indicates, the book concentrates on progress made in the last half century, it also traces the public health movement from its early beginning. Further information regarding the semi-centennial may be obtained from the American Public Health Association, 370 Seventh Avenue, New York City.

CANEY CREEK COMMUNITY CENTER

Shut away in the mountains of eastern Kentucky, without an inch of railroad within its area, 150 miles from even a town, is the earnest, ambitious little county of Knott.

In this county, where the roads are largely mountain trails or run in the beds of the flowing streams, there live 14,000 pure-blooded American mountaineers. There is but one tiny town in this area,

with a few hundred inhabitants; a settlement that has but one road through the middle of it and consists of straggling cabins. Not a town, as the world knows a town. The rest of the inhabitants are scattered up the forks and branches, living in log cabins for the most part. There are no hospitals, libraries, nursing service, no relief agencies.

There are two overworked mountaineer physicians who travel all day and into the night on mule or horse-back; vainly trying to save life. There is no physical examination of school children, nor is any effort being made even to see that babies are safely born. The county is filled with trachoma and hookworm. Hundreds of children are attending the little creek schools, afflicted with both these and with other diseases.

But, in this County of Knott, there is a mountain physician who is the county health officer, serving without salary. He has the interest of his people at heart. He has started to raise $4,000 toward securing a "Nursing Unit" for one year for the area. He has the promise of the Fiscal Court for $1,000. That would make $5,000. If the county can raise this $5,000, the State adds an equal amount, $10,000 in all. This will place a county health officer on full time with pay, and five trained nurses stationed in remote places with dispensary supplies; it means that every school child will be examined and remedial methods used to cure such retarding ailments as trachoma (that frequently results in total blindness, unless treated), adenoids, rotted tonsils, decayed teeth. Also, it would mean public health courses and programs to reach and enlighten all the people—adults are well as children.

This is one of the quickest ways to save life; and life that is pure blooded American.

Those desiring to aid in this work may do so through CLINICAL MEDICINE or they may send contributions directly to Dr. J. W. Duke, care of Caney Creek Community Center, Pippapass, Knott County, Kentucky.

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[We have referred to this subject in an editorial appearing on page 750 of this issue of CLINICAL MEDICINE. The work of the Caney Creek Community Center is, manifestly, one of the most important undertakings at the present time. We sincerely hope that our suggestion may be accepted by many of our readers.—ED.]

YOUR RESPONSIBILITY

A great responsibility rests upon the nation today, a responsibility to which the nation is by no means wholly alive. There are today, in various government and private institutions throughout the country, 26,300 disabled exservice men. This number has increased eightfold since 1919 and may continue to increase for several years to come. On an average, a thousand men a

Red Cross Teaching in Care of the Sick.

month are reporting for hospital treatment. And, there are many more thousands scattered among the villages and farms of the United States who are either unaware of

Teaching the Schaefer Method of Artificial Respiration.

the aid that the government wishes to give them or who for one reason or another feel themselves unable to accept such aid.

At the close of the war, the Surgeon

Showing Movies in a Ward at Walter Reed Hospital, in Washington, D. C.

General's office warned us that we would not begin to know the number of our disabled for a year and that it might not reach its peak before 1925. That warning was forgotten until recently. The people have lately begun to realize that all is not well with the demobilized soldiers, that even yet disabilities incurred by overseas service are manifesting themselves, that old wounds are reopening under the strain of strenuous labor, and that the effects of hardship, exposure and poison gas are beginning to be felt. All these war casualties require attention.

The men who report for treatment, the men who are in hospital, are cared for by the Government. But, the Government has neither the means nor the machinery to seek out and handle individual cases. It has therefore recently asked the Red Cross, in cooperation with the newly formed Veterans' Bureau and the American Legion, to make a canvass of the entire country, with a view toward locating these men and putting them in touch with government agencies.

Already, the Red Cross has done much for the disabled soldiers.

Military and Naval Relief

Number of Army and Navy Hospitals Served	54
Number of Army and Navy Posts Served	210
Number of Patients in Army and Navy Hospitals	11,690
Number of Red Cross Workers in Hospitals	105
Number of Red Cross Workers in Posts	175

At Mount Alto Public Health Service Hospital No. 36.

Visits to Patients in Such Establishments	997,140
Total Service Rendered to Above Men	197,640
Average Monthly Entertainments and Recreation Events	669

Average Monthly Attendance on These Events	133,097
Regular Enlisted Men and Their Families Served by Chapters	29,712
Ex-Service Men	
Number of Public Health Hospitals	62
Number of Contract and Government Hospitals	1,630
Number of Men in Such Establishments	26,300
Number of Red Cross Workers in Such Establishments	448
Chapters Rendering Service to Ex-Service Men	2,397
Home Service	
Ex-Service Men and Their Families Served by Chapters	1,508,640
Men Now in Service and Their Families Served by Chapters	41,940
Total World War Men and Their Families by Chapters	1,550,580
Requests for Friendly Aid and Personal Problems	356,544
Amount Expended for Home Service Relief (1920-1921)	$8,572,826
Vocational Training Service	
Number of Men Under the Federal Board (Approximate)	80,000
Number of Men Entering Training Monthly	5,000
Red Cross Services to Men Before Entering	90,000
Number of Loans to Men	32,495
Amount Loaned	$ 450,000
Percentage of Loans Repaid	85

All this is work which the American people are doing through the Red Cross. But, it is work that requires funds. Exclusive of its public-health and disaster relief work, the Red Cross spent last year for the disabled men alone ten million dollars. Yet, it took in only $6,000,000 altogether in dollar-membership dues. The need is very great. The highest and greatest obligation that the nation faces today is, the problem of the exservice men. It is up to the American people to support the Red Cross, to stand behind it as they did during the war, to do their share to see that the disabled men get the care that is their due. It is up to them to join the organization during the annual Roll Call, which will be held this year from November 11 to 24.

STATISTICS

Unless you are interested in a thing directly, statistics concerning it are about the most tiresome reading that can be imagined. But, if you are interested directly, statistics become fascinating.

Remember how you devoured statistics concerning the Red Cross during the war? The 371,000,000 articles made by the 8,000,000 women, the 55,000 canteen workers, the 23,000 nurses mobilized, the 500,000 soldiers' families given aid, the $400,000 collected in money and supplies, the 22,000,000 members—all these figures you read avidly, and with a feeling of satisfaction that you were a member of so vastly efficient an organization.

But, since the war, you have lost touch with Red Cross work. You know that it is carrying on a nation-wide public-health campaign; yet, just what it has accomplished, you would find difficulty in saying. Here are some statistics taken from the report for the fiscal year, ending June 30, 1921, which may be interesting reading.

Enrollment	
Counties in Continental United States	3,058
Total Chapters American Red Cross	3,592
Total Active Chapters	3,404
Total Chapters having Paid Executives	858
Total Number of Branches—between 17,000 and	18,000
Total Number Junior Auxiliaries	31,710
Total Adult Membership	6,041,163
Total Junior Membership	5,113,090
Grand Total of Memberships	11,154,253
Red Cross Nursing Service	
Total Number of Nurses Registered	37,787
Total Number of Nurses in Active Service	5,127
Total Number of Nurses in Service Overseas	142
Total Number of Nurses Furnished Public Health Service	1,163
Public Health Nursing Service	
Number of Chapters Employing Public Health Nurses	1,036
Number of Public Health Nurses Employed	1,335
Average School Children Examined per Month	55,445
Number of Patients Nursed	499,800
Home Hygiene and Care of the Sick	
Instructors Now Enrolled	1,726
Students Enrolled During Year	258,710
Certificates Issued During Last Twelve Months	86,570
Classes Held	883
Nutrition Service.	
Dietitians Now Enrolled	2,514
Students Granted Certificates	1,587
Classes Under Instruction	1,114
Children Under Instruction	22,006
Food Selection Classes	163
Health Service	
Number of Health Centers in Operation	260

Health Lectures Given	4,015
Clinics Held	6,264
Probable Number Attending Such Meetings	90,252
First Aid Service	
Accidental Deaths in U. S. During Year	75,432
Chapters Having First-Aid Classes	437
Classes Under Instruction	5,100
Students Enrolled	104,496
Certificates Issued	20,172
Life Saving Service	
Examiners Enrolled	1,276
Certificates Issued	6,096
Present Number of Corps	160
Present Number of Members	10,941
Disaster Service	
Major Disasters (1920 and up to July 1, 1921)	70
Number of Chapters Rendering Disaster Relief	177
Number of Chapters Organized for Disaster Relief	328
Amount Expended for Disaster Relief	$ 1,600,000
Total Distributed Since 1881	$14,052,734
Production Service	
Chapters Carrying on Production	1,613
Surgical Dressings Made	1,317,528
Layettes Shipped to Europe	56,486
Garments Shipped to Europe	551,680

The Red Cross will hold its Fifth Annual Roll Call during the two weeks from Armistice Day, November 11th, to Thanksgiving, November 24th. The Roll Call is not a campaign. It is simply an opportunity for members to pay their yearly dollar membership dues, and for non-members to join. Last year, 6,000,000 people joined. It is hoped that the membership may be greatly increased this year in order that the work may be carried on in such a manner as efficiently to meet the growing need.

AMERICAN STUDENTS IN EUROPE

In another part of this issue, there appears a paper by me relating to the medical school at Montpellier.

After a tour of the universities of Southern France, made for the purpose of furthering the interests of American students in these institutions and of determining the special advantages which each has to offer to foreign students, Prof. Earl B. Babcock, director of the American University Union in Paris, reports the results of his inspection which will be sent to all American universities to be used in encouraging American college graduates, who intend to take up postgraduate work abroad, to come to France.

Prof. Babcock visited the universities of Montpellier, Dijon, Grenoble, Toulouse and Bordeaux. He will later make a tour of inspection of the universities of Northern France and Strasbourg.

In each instance, Prof. Babcock was struck by the cordiality of the sentiments expressed toward Americans and particularly remarked the energy and completeness of arrangements made in certain special branches.

As a result of this tour, Prof. Babcock urges upon all American students coming to France for special courses to spend at least the first half of their allotted time in one of the provincial schools which have much to offer. Living conditions are far different and cost one-third less than in Paris. The American student gets to meet and to know a different kind of French family life than he finds in Paris.

The average American student, coming to France for study, finds the life of Paris bewildering. The universities are too full and too busy to give him the personal attention that he needs as a beginner in French educational circles. The life, in fact, is just what it would be in New York or Chicago, in comparison with the smaller American college town. Prof. Babcock states that "Each of the schools I visited has some special course or courses which should appeal especially to Americans. For example, the medical school at Bordeaux offers special courses, in eye, ear and nose work that are unequaled in all Europe. Toulouse is excellent for language instruction. The summer course at Grenoble is especially interesting. Dijon is celebrated for its scientific course, while the medical school at Montpellier is famous the world over.

The impression that provincial universities are out of date is wrong, inspite of the fact that most of them look back upon centuries of history. Each school is jealous of its prestige and every effort is made to maintain a high standard of tradition. The instructors are for the most part young and have plenty of new ideas and there is no lack of energy shown in the administration offices. No student ought to come to France for a general course or instruction. The visitor should be a mature student, a graduate who seeks some specialized study

along definite lines. Students must not expect American living conditions and they must at least have a working knowledge of French.

Professor Babcock made arrangements at each university for some member of the faculty to look after the interests of American students and to act as a medium between the particular university and the Union. If the visiting American student comes to Paris, he ought to report at once to the offices of the American University Union, an American organization created to draw more closely together the French and American institutions of learning.

Dr. B. Sherwood-Dunn.
54 Bd Victor Hugo, Nice, France.

THE VALUE OF MEDICAL SOCIETIES

Just what a medical society means to the active practitioner, can hardly be estimated. It is there that we come in contact with each other and learn what good fellows the others really are, and how, through our littel apparent antipathies, we have drifted apart from each other; matters of slight importance having generally caused such estrangements and misunderstandings. It makes no difference how little or how much a man may know; through the deliberations of his society, he will pick up some valuable knowledge and ideas that will give him food for thought and will cause him to study, investigate and ascertain the facts.

Again, a man may be ever so clever; yet, no matter where you go, you will always find some one in advance, with bright, clever thoughts and from whom you may gain knowledge. All men do not read alike or the same literature. One man will discover what the other has overlooked, or what did not fall under his observation, and he will pass it along at the society meetings.

Team work is being more and more recognized as the best method to get results and the only way the average medical man can get it, is through his society. There we interchange our experiences and bring them up for discussion; there we find help in understanding the obscure conditions we meet in our cases. The assistance that we get unravels those atypical and mystifying cases that have caused us wakeful nights and hours of study.

We have a good patient, a close friend or relative for whom we are anxious to secure the best possible results. Our mental resources may be blunted through over great anxiety. There are limitations to the brain faculties and these are the times when the faculties do not act with normal alacrity. We do not possess the initiative to put into effect the proper knowledge we have, whereas a hint or a suggestion from an outsider will awaken or stimulate the dormant neurones to their duty and rays of sunlight will pierce the clouds clearing away the mist of our befogged brain.

To have a good, active society, there must be cooperation and each man must add his bit. Every physician should attend the meetings, unless he is detained by some matters over which he has no control and which, we know, many times, handicap the medical man. You do not have to write a paper unless you wish, for, there is always some one who does. If you do write a paper, ask that it be freely discussed and do not take exception to any constructive criticism. The discussion I look upon as the most valuable part of the paper; for, it brings out many points for consideration that one's own mind is unable to comprise.

Right here, I may say that many good papers are not written and are thus lost because of the timidity of the writer who fears criticism and apprehends that the matter he may present is not technical enough. There is a lot of rich knowledge stored away in the archives of your cranial vaults that would be of great help to your brother practitioners. A presentation of the experiences you have had and the happy results you have gotten by the use of this or that method might help others. It is not the greatest achievements or the newer wrinkles that always count, but the things that work well in our everyday life. I have often heard medical men give as an excuse for not attending medical society meetings that some one would get up and tell of the remarkable things he did, or of something that was of no value to the general practitioner. Such may at times be a fact. The man who is doing special work, out of the ordinary, may relate to the society the theories he is working on, and such theories, while they might not interest the average man, develop facts that do help every one. Without research and study, the art and science of medicine would come to a standstill. To be able to present to the world a ray of hope in this serious game of life, helping our fellowman in distress

is the greatest fulfilment of our usefulness. The modest, retiring man who appears of little consequence is sometimes underestimated and, yet, he is bubbling over with the richest kind of valuable information that only needs the right kind of interest manifested and some cordial encouragement to unfold the methods he had to use to handle obstacles that only could be overcome by ability, judgment and rare skill.

The meeting place of the society should be the one place where we can be human and lay aside all selfishness, antipathies and evil thinking, learning from and teaching each other those things in medicine that will bring health and happiness to our patients. The association will put us in closer touch with each other, showing us the true worth of our fellow workers and making us realize what we have missed by not knowing them more intimately.

The public is fast learning that the real doctors are the ones who attend society meetings and keep up with the advances in medicine. In those who are truly in love with their profession and their scientific work, they place every faith, confidence and responsibility because they think they are on the job. Shrewd business men investigate the qualifications of a medical man, as to his proficiency, before employing him, and one of the first things asked is, what societies does he attend and will they endorse him. Perhaps, because I have gained so much benefit, enjoyed the papers and discussions and the meeting with my medical confrères, my enthusiasm may be greater than it should be. However, I have expressed my ideas and hold the society close to my heart and, like every one else who does any serious thinking, I think that I am right.

"It ain't the guns nor armament, nor the band
that they can play
But the close cooperation that makes them
win the day.
It ain't the individual, nor the army as a
whole,
But the everlasting teamwork of every bloom-
ing soul."

—Rudyard Kipling.

Louis deM. Blocker.

Cincinnati, Ohio.

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[Doctor Blocker's panegyric in praise of medical societies is well put. There is no gainsaying the fact that those physicians who diligently keep away from medical society meetings are the losers and are the poorer physicians for thus indulging their indolence or their disinclination to meet other doctors. Everything that Doctor Blocker has said about the advantages accruing to those who attend and participate in the deliberation of medical societies is only too true.

However, there is another aspect to the problem and this is, the deplorable lack of unity of the medical profession arising out of the failure of so many physicians to attend medical society meetings. One serious consequence is, that physicians are known to be without suitable and strong organization coordination, cohesion. It is for that reason that legislatures have succeeded so frequently and so disastrously in putting it over the doctor in matters that concern him intimately, not only as a medical man and as a bread winner but also as a guardian of public health. The physician's work as this guardian of public health is sadly interfered with and it is to be feared that serious consequences will follow.

This is an error of combination, of cooperation. It is urgently necessary that medical men should get together and work together. Let them get together, first of all, in their local, county and district medical socieies and get acquainted. Let them find out, as Doctor Blocker puts it so well, that, after all, the other fellow is a good fellow. Let us make friends with our colleagues and then let us push together in close cooperation for the good of the medical profession, because the good of the medical profession means the good of the public at large.

An impressive lesson, we find, is taught in the subjoined little skit which appeared first in the *Pittsburgh Medical Bulletin* and which we have clipped from a recent copy of the *Official Bulletin of the Chicago Medical Society*.—Ed.]

TEN WAYS TO KILL A MEDICAL SOCIETY

Don't go to the meetings.

If you do go, go late.

If the weather doesn't suit you, don't think of going.

If you do attend a meeting, find fault with the work of the officers and members.

Never accept an office, as it is easier to criticize than to do things.

Get sore if you are not appointed on

committees; but, if you are, do not attend meetings.

If asked by the chairman to give your opinion on some matter, tell him you have nothing to say. After the meeting, tell everyone how things should be done.

Do nothing more than absolutely necessary; but, when members use their ability to help matters along, howl that the institution is run by a clique.

Hold back your dues, or don't pay at all.

Don't bother about getting new members. "Let George do it."

OPEN HOSPITAL OR CLOSED?

Many times, the hospital refuses the case on account of the scarcity of charity beds in the average charity hospital. You will say that these are cases for the clinics. Well perhaps they are. But can you not imagine a circumstance that might cause the young and ambitious practitioner to wish to retain his cases? These patients might be able to pay a little and this little may mean a great deal to the young physicians. Or this case might have connections of a nature which might mean future good business to this young practitioner. What we need is hospitals which will take these cases for ten dollars a week, without adding another ten dollars for dressings and extras, and allow the practitioner to attend his own cases.

I want to see municipal hospitals to which every practitioner can take his charity cases and not be obliged to turn them over to some professor. These cases might be used for teaching purposes but the delivery is to be made by the attending physician.

[S. J. Goodman, *Amer. Jour. Surgery*, Nov., 1916.]

DIPHTHERIA: EXPLAINING INCREASED MORTALITY

Although the article on Diphtheria in the 11th edition of the Encyclopedia Brittanica was contributed by one who "believed in" antitoxin as the right treatment for the disease, we find therein the following quotation from the eminent statistician, Prof. Thorne-Thorne: "It is to be noted that the great increase in diphtheria mortality of late years coincides, in point of time, with the great improvements in such sanitary measures as water-supply, sewerage, drainage, etc." But no explanation is given.

So much for the admission of the fact of greatly increased mortality. The question is, what has happened to so counteract the influence of improved sanitary measures that the mortality has increased instead of diminished? According to my belief and that of all bed-rock students of hygiene, we need look no further than the prevailing treatment of fever patients with throat symptoms. The figures from the Registrar-General's Office, England, show an increase of about 30 percent in diphtheria mortality, per million population, yearly averages, since 1894, when "antitoxin" became the prevailing treatment! The officials at that office neither know nor care as to the method of treatment; they simply record the deaths attributed to the disease. But, to my mind the evidence shows that hundreds of thousands of death certificates should have named antitoxin as the cause of death, instead of diphtheria.

Most diseases are the result of wrong living habits, and the abnormal mortality to wrong treatment, namely, forced feeding, drugging and the injection of filthy substances to befoul the blood. Here in Boston, at the present time, we note, according to the Monthly Bulletin of the Health Department for February, 1921, that, while the mortality from other filth diseases has been less, the deaths attributed to diphtheria for February, 1921, were greatly in excess over those in February, 1920,—283 cases with 20 deaths, against 187 cases with 15 deaths. In view of the facts herein recorded, how does it happen that the farce goes on in the articles of syndicate writers and emanations from the medical profession in general, about the alleged banishment of diphtheria?

Should it ever transpire that poisonous drugs or filthy injections aid in the prevention or cure of disease, we shall find water running uphill naturally; for, the laws of nature will have been reversed.

As Schopenhauer said, "The laws of life are so simple that we refuse to understand them".

The treatment for diphtheria that has worked very happily with me during the past 37 years is as follows: A gentle cooling compress over the throat from ear to ear, six to eight folds of linen or cotton,

making a pad about four inches wide, to be wrung tightly from cold water and kept in place by a bandage around the neck wide enough to well cover the pad which should be freshened before getting hot. Small portions of moderately hot water every hour or two to maintain the normal fluidity of the blood. Not a morsel or sip of food until convalescence, the patient having fresh water according to desire.

Treated thus, from the onset of the disease, there have been no long-drawn painful sicknesses; and this has proved the appropriate treatment at any stage of the illness.

Chas. E. Page.

Boston, Mass.

[The next article has been prepared by way of discussion of Doctor Page's communication. We should be interested to know what are the observations of general practitioners, throughout the country, with regard to the very difficult problem of diphtheria control.—Ed.]

DIPHTHERIA CONTROL

The communication just preceding contains an outspoken criticism of the prevailing methods of diphtheria control; it alleges that the mortality from diphtheria has increased steadily since the introduction of antitoxin treatment and asserts that the most successful treatment of this disease consists in cold-water compresses to the throat and complete fasting until convalescence has commenced.

The Journal of the American Medical Association, for August 27, contains a paper by Dr. Bernard W. Carey, of Boston, (Doctor Page's own bailiwick), who is director of the division of communicable diseases, Massachusetts Department of Public Health, and who may be assumed to speak with some degree of authority. Doctor Carey admits that, "while there has been a marked advancement made in the treatment of diphtheria with a corresponding decrease in the mortality rate since the introduction of antitoxin, there has not been the reduction in the morbidity that might reasonably have been expected". To specify:

"In reviewing the mortality for diphtheria during the last twenty years, as reported both from the registration area and in Massachusetts, the marked decline in the number of deaths per hundred thousand population from 43.3 to 15.4 is a source of great satisfaction, and we rejoice in the saving of life that has actually resulted. Further perusal, however, of the statistics for this period shows that this marked decline came largely during the first ten years, and that a fairly constant mortality rate has prevailed during the latter ten years, declining only from approximately 20 to 15.4 per hundred thousand population.

"A second striking fact is, that the fatality rate for diphtheria for a considerable number of years has not varied more than 1.8 per hundred thousand population, ranging from 9.3 to 7.5."

With these statistics before us, Doctor Carey adds, it behooves us to consider carefully the epidemiologic factors responsible for these continued rates, particularly in the light of the present-day methods available for the prevention and control of this condition.

"It appears that the main factors which may be held responsible for the continued undue incidence with resulting mortality are three: first, and . . . the most important, the incomplete application of procedures of proved worth for the prevention and control of diphtheria . . .; second, the failure of early diagnosis, and the tardy and often insufficient use of antitoxin; third, the lack of realization by parents of the seriousness of the sore throats of childhood and adolescence, with the resulting delay in securing proper medical attention. It is on these three points that future efforts must be intensified, or from which we must start if we are to attain the maximum results so earnestly desired."

It would be well if all our subscribers who have available files of the *Journal of the American Medical Association* were to study Doctor Carey's instructive article, and also the discussion of this communication. The salient lesson contained in it is, not, that diphtheria is far from being under control because of the introduction and adoption of antitoxin treatment, but rather in spite of this great and manifest progress. The difficulties attending the securing of better, and best-possible, results, leading to lessened morbidity and mortality of diphtheria, are outlined clearly. There can no doubt be left in the mind of the unbiased reader that the solution of this very difficult problem does not lie in the direction pointed out by Docor Page but, rather, in the direction proved to be the right one by the noted work done by Doctor Parks and his associates of the Research Laboratory, New

York Department of Health, as well as by numerous other investigators and clinicians.

In this connection, we desire to call attention to another important article in the *Journal of the American Medical Association* (Sept. 10, '21, page 835), entitled, "Diphtheria Prevention Work in the Public School of New York City", and presented by Dr. Abraham Zingher. In this article, the advantages of the Schick Test for the determination of an existing diphtheria immunity, or its absence, are clearly shown and demonstrated.

Doctor Page speaks of "filth diseases" (of which diphtheria is assumed to be one) and of "the injection of filthy substances that befoul the blood" (referring to the injection of antitoxin and other serums, also of bacterial vaccine); he criticizes the biologic treatment of infectious diseases, claiming that the injection of serums and of bacterial vaccine is deleterious to the health of the patients. All this is quite familiar and has been urged against the steady progress made in the study of bacterial diseases, of immunology and immunization, ever since the bacterial etiology of certain communicable maladies was first established. To us, the characterization of biologic remedies as "filthy substances" sounds not overdrawn as much as actually reprehensible in its incorrectness. No careful and unbiased student of immunology could possibly bring himself to employ such objectionable terms.

It is a principle, not discovered but emphasized by Hahnemann, that certain disease manifestations can be eradicated according to the law, *"Similia similibus curantur"*. The discoveries of the last quarter-century and more have demonstrated that this Hahnemannian principle rests on a sound foundation. The pathogenic properties and effects of bacteria that have invaded the human, and animal, organism can be opposed most successfully by having resort to the biologic processes that take place in the infected organism itself; that is to say, by the stimulation of the self-immunizing mechanism of the body. Such a stimulation is produced by the injection of "similar" substances, that is to say, either bacterial substances (which have been cultured on sterile and carefully clean culture media, and have been suitably prepared under strict adherence to the requirements of sterile working), or immune substances which have formed in the blood serum of immunized healthy and well-kept animals. In either case, the substances that are injected are sterile and as unobjectionably "clean" (that is, not "filthy") as it is possible to make them. Certainly, they are far more clean than are many medicaments that are employed daily for administration by mouth and in other ways.

Doctor Page, in common with a very few other physicians, objects strenuously to the employment of biologic methods of treatment. Yet, experimental and clinical experience has demonstrated definitely that these biologic methods, if employed with suitable selection of cases and of appropriate remedies, are more successful, other things being equal, than ordinary methods of treatment. To us, we confess, Doctor Page's method of treating diphtheria patients seems hazardous, to say the least. We should be greatly afraid to trust solely to cold compresses and fasting, no matter how much these two remedial agents may contribute to the success of our actual, etiologic, procedures. In short, we can not bring ourselves to accept his strictures as justified, nor can we admit that his method of treatment is superior to that advocated by the most competent and most experienced clinicians.

We feel certain that the whole-hearted and conscientious adoption of such principles of treatment, as are outlined in Doctor Carey's paper, will go far toward solving the diphtheria problem. To deprive ourselves of the advantages of modern methods in treating diphtheria would mean, to go backward instead of forward.

BIOLOGIC THERAPY AMONG INDIANS.

The autohemic idea is a good one, but, as there is nothing new under the sun, you will be interested to learn that the Indians (head medicine men) of Guatemala have used the method of vaccines for centuries. I refer to the old Quiche Indian noble medicine men, of whom there are few now living. Their mode of procedure was this: They would take seven ordinary house flies, toast them on a komal, or earthen pan, over a slow fire, grind them to powder, mix the powder with some warm drink and cause the patient suffering from severe ill-

ness, as typhus, typhoid or other acute disease, to drink this at once. The effect would be complete diaphoresis; then, they would bleed the patient, with a small instrument made of a piece of glass, and give this blood to others who might be ill with the same sickness. Of course, this would be a religious rite, with attendant ceremonies used to convince the spectators of the superiority of the medicine man, and it was claimed that the blood was offered as a sacrifice to the gods. But the principle was basically the same.

In writing the above, I have also brought to my mind another therapeutic agent of the Indians of Central America: When a human being or animal suffers from suppression of urine, from any cause, they catch a cricket, pull off one of its legs, boil this in water and give it to the patient to drink. It works in many cases, in a most remarkable way.

C. F. Secord.

Omaha, Nebr.

REPORT ON SOME UNUSUAL CASES

In presenting a report on this series of cases, that I think are of interest on account of some degree of rare clinical symptoms, I submit the first with no diagnosis. I have been unable to classify. I invite your criticism "ad libitum," also suggestions as to treatment, and prognosis as to ultimate outcome.

The second case, in view of termination and attendant features, lingers in my memory as the saddest event that, thus far, I have been called upon to witness.

In the third case, which I submit with a tentative diagnosis, no claim is made for any special method of treatment, since I was uncertain as to condition present. I exhausted all measures I knew, and waited. The final results justified the course pursued.

First case.—Female, age thirty-four, married, three children living, two miscarriages, history negative as to lues, tuberculosis or other diseases that could be a factor.

History of trauma of frontal bone with depressed fracture, at seven years of age. No surgical treatment; X-ray shows spicule of bone.

Symptoms. At variable periods of time, patient falls into a state of somnolence similar to hypnotic trance. No marked aura, except that the attacks are usually preceded by headache of unusual severity for day or so. (The patient is subject to frequent headaches.) Status of sleep usually with sudden onset; length of attack varies from few hours to thirty-two hours. I recall one period of twenty-two hours and one of seventeen hours. During this time, she moves about in bed; there is no rigidity; free use of extremities, eyes usually closed but sometimes open for few minutes.

Respiration, pulse and temperature are normal. There is no response to heat and cold, sound or light. No memory of happenings during attacks remains.

No involuntary action of urine or bowel. No convulsion. Patient does not bite tongue or froth at the mouth. The normal status is resumed in a few days after awakening, with no discomfort with the exception of weakness.

My treatment in this case is practically nil, unless some special symptoms arise; for instance, catheterize if somnolence is long continued. In one of these attacks, four years ago, the patient being pregnant at term and labor beginning one hour prior to the onset of somnolence, I delivered her of living child with forceps.

After this patient became conscious, we had some difficulty in convincing her of the identity of the child. The latter is defective, (hydrocephalic.)

Second case.—Female, age forty-two. X-para, nine children living. I delivered this patient five years ago of a living child. At that time, labor was quite difficult, due to cystocele and prolapsus. In the present instance, I was called at 4:30 a. m., found patient in labor with regular active pains, but with no dilatation of os. External examination suggested a possibility of twin pregnancy. After several hours of hard pains, the os dilated sufficiently to determine presenting part. It was one hand, which I reposed, but it would not stay. Violent pains then ensued, after which the cord prolapsed and I felt other parts. I then gave a hypodermic injection of morphine with hyoscine and cactin, in order to make a more accurate examination. There was one hand, one knee, one foot and the head, all presenting; in addition, the cord continued to prolapse.

Therefore, I gave chloroform to deep anesthesia.

I had a sensation as of two heads, but could not differentiate whether foot or knee were from one or two bodies. Then I tried to do version but did not succeed.

I now called in consultation, Dr. Johnson of Giddings. This was at 4:00 p. m. Deep anesthesia was again induced. We thought that we had all parts out of the way sufficiently to deliver with forceps. However, we failed and the parts came down again as before. Then both of us tried to do a version and failed. We could not determine whether we had one child or twins. At 8:00 p. m., we decided to call in a surgeon and to do cesarean section as a last resort. The surgeon came on the 12:30 a. m. train, reaching the home at 1:30 a. m. He operated. The child was dead, but the mother apparently stood the operation very well, with the exception of a rapid pulse (120 to 130) which remained high. The patient appeared to be doing very well for twenty-four hours, with the exception noted. She was rational, had no temperature. After twenty-four hours, the temperature rose to 100 and 101, with the pulse still between 120 and 130. She was rational most of the time. After forty-eight hours, the temperature rose to 101 and 102. At the end of sixty hours, she became comatose, gradually growing weaker and died sixty-eight hours after the operation.

Third case.—Contraction of Bandl's Ring. The patient was married. Age seventeen years. Primipara. Weight about one hundred and sixty pounds, height about five feet and four inches. Labor began at 10:00 a. m. I saw her at 1:00 p. m. Made examination finding everything apparently normal. Head presented. The os was slightly dilated. The pains were of average severity. After two hours, a slight increase was noted in the degree of dilatation. As the pains were not very active, I gave strychnine, 1/30 grain, with quinine, 10 grains.

For the next hour or so, things progressed about as before, but with progress limited. At the end of the sixth hour, the pains were fairly good, the external os admitted four fingers; but, further up, about two and one-half or three inches there was decided contraction through which I could not pass two fingers. I tried to relax with chloroform, but with no result, except producing the cessation of pains. Then I tried a hypodermic of morphine, 1/8 grain; to no effect. In the meantime, the patient was having short, ineffective pains at intervals of five to eight minutes. Partial anesthesia was repeated and the result was negative. I decided then that rest might be the best procedure. So I gave chloroform until the pains ceased. Then I gave a hypodermic of hyoscine, morphine and cactin, telling the mother of the patient to watch her and to report developments. In an adjoining room, I slept for six hours. The patient also slept most of the time. At the end of twelve hours from the onset of labor, the patient was having real pains, the annular contraction had disappeared and, two hours later, a living child was born.

This is the first case I have had where the external os was dilated or dilatable but with the contraction described.

If this was not a case of Bandl's Ring contraction, I have no diagnosis to offer.

C. H. Otken.

Paige, Texas.

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[Here are several very interesting case histories open for discussion. How would you have managed these cases? What would you do with the first patient in order to relieve her of those periodical attacks of narcolepsy.—Ed.]

SUBCUTANEOUS SENSATIONS

To our desk was sent, by the czaristic Managing Editor, a reprint from the April, 1921, issue of the *American Journal of Psychology*, signed by Donald A. Laird, University of Iowa (whether student of professor, not stated), with instructions to analyze its wonderful ingredients. As the reprint bears the caption given in the title, we felt keenly hurt; for, having proclaimed ourselves for a goodly number of years to be an apostle of the knife, chisel and saw, we felt somewhat chagrined at being ordered to tread psychologic paths, and though we have learned in the army that a good soldier obeys orders, for once we were tempted to throw the gauntlet into mild-mannered autocratic Achard's face, when we glanced at the study—and decided to read it carefully.

After all, there is a surgical aspect to

the problem (?) presented by Laird and, as we recalled what little we have learned of neurologic surgery, our own nerves began to tingle for, at last, we have something in cold scientific print that is as transcendental—but wait a miute, let us take a look at this newest thing in the investigation in sense phenomena.

It appears—we practically cite Laird literatim—that, in the spring of 1920, he met with a minor accident by which the thumb and first finger of the left hand were cut almost completely through at the first phalange (Laird evidently prefers "phalange" to "phalanx") and the second, or middle finger was completely cut through the second phalange (again, Laird's orthography). No pain was connected with the occurrence. As a matter of fact, several seconds elapsed before the injury was called to his attention by the loss of the usual sensitivity.

Now, let us pause here for a moment to catch our breath. Here was a man who had "completely severed through" at least one finger and he was not aware of it!

We have cut our fingers again and again with pretty sharp scalpels and, *mirabile dictu,* though we were much interested in the operations we happened to be performing, we instanter knew that we were hurt, to say nothing of our immediate desire to be sure of the patient's Wassermann reaction. However, we may not be normal in our psychoneurologic make-up, so we allow ourselves to stop only long enough to say to Dr. or Mr. Laird that we wish he had not aroused our natural curiosity and then left us to our own shifting, since he deliberately and with malice aforethought failed to state how the accident happened and what the peculiar tool was that so nearly dismembered his phalanges.

To add insult to injury, Laird proceeds to tell us that "the lacerations were cleansed with sterile water before the experimentation, in order that the sensations might not be clouded by the effects common with the use of most germicidal preparations. The flow of blood was effectually stopped and the surfaces of the wounds were kept fairly free during the series of observations."

We know that it was not a sharp instrument that produced the injury. We do not claim the acumen of Sherlock Holmes but, when the author himself calls his wounds "lacerations," we have something of a clue.

Laird anticipated that any manipulation of the exposed surfaces would be painful to some extent; but, not Laird's fingers, for, he continues, pain was not observed (again we quote Laird verbatim, since, as can be guessed, we common mortals would have "felt" pain) and adaptation was rapidly made to the new conditions. That is, by the way, nothing new. Every physiologist knows that, if a wound does not kill the patient the wound or wounds adapt themselves somehow to the new conditions. One moment, though. We have done the psychoneurologic experimenter a great injustice for, immediately after the sentence just quoted, he proceeds to tell us: "It was a rather excruciating feeling that was experienced, especially when large areas were stimulated by contact. The resultant sensations were at once recognized as possessing some of the qualities peculiar to the subcutaneous sensations, and it was attempted to take advantage of the circumstances to make an investigation of the nature of the sensations originating in the muscles."

Now, there is some satisfaction in learning that Laird had no pain but a rather "excruciating feeling." We are pretty busy today, so, we have to ask the reader to look up the word excruciating in his dictionary. We recall, however, that excruciating has some such meaning as agonizing pains. Still, our dictionary was not written by a psychologist; so, we presume, it does not count.

As long as we have been convicted we may as well sit out our confinement and proceed. Laird continues:

"The sensations resulting from the stimulation of the stump of the second digit and the proximal surfaces of the other two lacerations were very similar to the feeling ordinarily experienced when the skin is anesthetized and pressure applied; but, the resemblances were scarcely more noticeable than the differences. To compare the sensations directly, does not convey an adequate conception of the nature of the sensations experienced when the muscle itself is stimulated. The sensations obtained in this manner were to some extent more intense, more noticeable, more distinct, and qualitatively somewhat different."

Again we must pause to get a little air. We note that the resemblances were more noticeable than the differences, but we can not make out what differences. We are also amazed to find out that the sensations

were "to some extent" more intense, and, because they were more intense, they were more distinct, more noticeable and qualitatively different.

If we were to endeavor to translate this highly psychologic stuff into plain English and describe that one's nose had been frozen as against merely being chilled, we would say that the difference in the sensations was qualitatively more noticeable and distinct because they were more intense. Splendid!

But, let us proceed. "The skin of the right forearm was anesthetized and the two sensation-complexes were directly compared. Those arising in the bared muscles seemed to be more intimately related to the body, while the others were, comparatively, more aloof, more external, and seemed to be less of a part of my 'self' than the former. The sensations originating in the anesthetized area were qualitatively more complex; although, when a large area was stimulated on the bared muscles, the quality seemed to become increasingly complex with an increase in area or pressure or with a violent manipulation."

Aside of the aloofness of the muscles in the experiment on the uninjured though anesthetized arm (and, who can blame the muscles?) the experimenter uses a small probe and comes to the conclusion that the quality of the cutaneous and subcutaneous complexes almost evades description.

If Laird had said that sensible thing in the very beginning, we would have gone for recreation and amusement to a medical society meeting instead of being condemned to flirt with the typewriter.

Laird proceeds to tell us about errors of localization. When not looking, he could not tell where contact was made. But now, at the end, we come to real scientific stuff for, two months later, observations of the nature of the deeper-lying sensations were carried out with the abductor pollicis brevis of the right hand uncovered, and, behold again, there were marked errors of localization. As for temperature sensation, the limen for temperature was very high and perceptible only at a few scattered points.

Now what's all this about? Laird tells us in the concluding paragraph that 'these observations of difference in quality of the subcutaneous sensations, when directly stimulated, from their quality when investigated in the usual manner, would seem to indicate that in the latter case we are still dealing with a complex from which only the surface sensations have been eliminated."

We have reached the end. What shall we say in the presence of such abstruse learning? We can not possibly be so immodest as to offer our professional services and submit—tentatively, of course—that Laird suffers from leprosy or anesthesia or syringomyelia. Indeed, we would offer a number of high sounding neurologic disease names, did we but know them; and we might, again modestly, suggest that the best treatment for whatever ails Laird is a good up-to-date textbook on physiology. But, then, the article was published in a journal for psychology, and that speaks volumes!

Gustavus M. Blech.

Chicago, Ill.

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[The "czaristic Managing Editor" has permitted this good-natured banter to be printed, for the reason that Mr. Laird failed to realize the difficulties attendant upon autoexperiments and to include them into his calculations and conclusions. It is all but impossible, for even a trained experimenter, to be at once investigator and "experiment-animal," or experiment-object. It is readily understood that, in the determination and evaluation of pain, it is hardly feasible to be, at the same time, the objective observer and the subjective sufferer of the pain. Observing pain and manifestations in others is entirely different from sensing pain in oneself. In the latter contingency, even the most objective and matter-of-fact investigator will necessarily be prejudiced and his judgment will be influenced, if not entirely vitiated, by his subjective sensations.

Not but what Mr. Laird's observations contain many interesting phases. Autoexperiences always do. Indeed, we have been sufficiently attracted by his account to wish to have it discussed.—Ed.]

Among the Books

McMECHAN. "ANALGESIA AND ANESTHESIA"

Nitrous Oxide-Oxygen Analgesia and Anesthesia in normal Labor and Operative Obstetrics. Edited by F. H. McMechan M. D. Pages 97. Published by the National Anesthesia Research Society.

This is not an ordinary monograph but a scientific review of the very latest studies by a number of distinguished anesthetists and obstetricians in the interest of safer and more efficient obstetrics and anesthesia. The work itself is a masterpiece in modern lithography and typography.

As the title implies, the subject deals with the use of nitrous-oxide-oxygen analgesia to assist the woman in labor, to overcome the pains and to facilitate delivery. This must not be confounded with socalled twilight sleep which is produced by opiates.

It is but natural that, in the exploitation of nitrous oxide which, by the way (the book informs us) can be utilized for many hours with safety, the question arises whether this method, depending as it is on more or less cumbersome apparatus, is applicable to general practice in the homes of the patients. We are informed, however, that, once the obstetrician masters the technic, the patient herself can be entrusted with the self-induction of analgesia and at the same time assist the propelling forces of the uterus.

From this remark, it must not be inferred that the monograph is one-sided. The very contrary is the case, for we are distinctly cautioned that this method is not only ineffective but positively dangerous when version has to be performed, for which deep surgical narcosis (ether) is essential.

In the plea for an effort to reduce the mortality of modern deliveries, a warning is issued that the same degree of asepsis as practiced in abdominal surgery must be combined with anesthesia—anything else being chimerical.

Space forbids even the mere mention of the many problems pertaining to the mother and infant which are discussed. Suffice it to say that all possible complications of abnormal deliveries have been touched upon, to say nothing of many interesting statistical and clinical data.

Those who are interested in this subject are earnestly advised to comunicate with Dr. T. T. Frankenberg, 16 East Broad street, Columbus, Ohio, the executive secretary of the society, membership in which is open to all reputable physicians at an initiation fee of two dollars. This will secure details of the labors of the society.

EWING: "NEOPLASTIC DISEASES"

Neoplastic Diseases. A Text-Book on Tumors. By James Ewing M. D. Professor of Pathology at Cornell University Medical College. 479 Illustrations. Philadelphia W. B. Saunders Co.

There are two ways of treating pathologic problems: namely, from the standpoint of the dyed-in-the-wool pathologist who can see nothing but abnormal cells as revealed by the microscope, and from the broader standpoint of the clinician who is not content with a mere familiarity with the histology of the disease or abnormality, but who desires to know the cause, course and influence on the human body of any and all pathologic processes.

Professor Ewing has written, not, as he modestly claims, a limited work on tumors, but an exhaustive treatise on neoplastic diseases, the title of the book having been very properly chosen to indicate the scope of this very valuable addition to American medical literature.

Ewing looks upon tumors, benign as well as malignant, as disease entities which vary in importance with the region or organ involved; in other words, a cancer of the mamma and a cancer of the liver cannot very well be grouped together, and this method of arrangement of the vast subject has been followed logically throughout the large volume, an innovation which the Reviewer and which no doubt all earnest stu-

dents will hail as a step in the right direction.

It was not to be expected that the author would definitely solve the many unanswered problems regarding the cause of morbid growths. However, the prevailing theories having been presented in extenso and very clearly, critical search fails to detect that the author has omitted the most recent contributions on the subject. Accordingly, it is no empty phrase to say that the book presents the status of the etiology and pathology of all neoplasms as it is today.

Indeed, the entire work is dignified and masterly without falling into scholasticism. The illustrations are splendid, meriting unstinted praise.

Of this book it can truly be said that no surgeon and general practitioner can afford not to possess it. It will prove a valuable reference work for some time to come.

LINOSSIER: "LES LIPOIDES"

Les Lipoides dans l'infecton et dans l'immunité (The lipoids in infection and in immunity). By Dr. G. Linossier, Professor at the Faculty of Medicine of Lyons. Paris. Librairie J. B. Baillière & Fils. 19 rue Hautefeuille. 1920.

Linossier has written a collective, we are almost tempted to say, exhaustive, monograph on the influence of the lipoids in the human economy. His work is divided in seven sections, the principal ones dealing with the definition, classification and general properties of the lipoids, the lipoids and hemolysis, the effect of the lipoids on the organism and the influence of the lipoids on the toxins.

All those who are interested in the subject and who have some command of the French language will find in this little monograph the very last word on these substances which fascinate the biologist as well as the clinician.

It is not at all unlikely that all our theories on the subject of the lipoids may yet undergo complete revolution and Linossier does not claim to have attained the solution of all the problems involved; but, as far as the book itself is concerned, it affords us a clear insight in the collective labors and their results up to the time it has been published, that is to say, this very day.

It is hoped that the publishers can be induced to issue an English translation of the work, for, there can be no doubt that it would interest wide medical circles which are now forced to rely on abstracts from the foreign literature.

CLUBBE: INTUSSUSCEPTION

The Diagnosis and Treatment of Intussusceptiòn. By Charles P. B. Clubbe. L. R., C. P., M. R. C. S. Second Edition. London: Oxford University Press. 1921.

We can do no better in reviewing this work than quote the author himself, who, in the preface to this small monograph, based entirely on his personal experience, asserts that no claim is made to treating the subject exhaustively, that his main object is to deal in a practical way with the diagnosis and treatment, in which irrigation of the bowel plays an important part.

Clubbe is a well-known surgeon, and discusses abdominal section and the treatment of surgical complications in a clear manner. If a man of his caliber presents also a simple method of treatment apt to be productive of excellent therapeutic results in a comparatively large number of cases of intussusception, one cannot but applaud such a sane conservatism at this time, when too many surgeons are willing immediately to resort to laparotomy whenever a child with intussusception comes under their care.

The little work can be read through in one evening. But, many general practitioners and younger surgeons lacking clinical experience will close the book with a feeling that they have to their record an evening usefully spent.

HILL AND ECKMAN: "ALLEN TREATMENT OF DIABETES"

The Allen (Starvation) Treatment of Diabetes. With a Series of Graduated Diets. By Lewis Webb Hill, M. D., and Rena S. Eckman. Fourth Edition. Boston: W. M. Leonard, Publisher. 1921.

It is not often that as short a period of research as three years will suffice to solve a difficult problem having to do with the management and, often, the cure of a serious disease. This fortunate outcome was accorded to the investigations of Doctor Allen in the clinical laboratories and department of preventive medicine at the Harvard Medical School, through which he was enabled to declare that the problem of diabetes is solved and that we need fear it no more.

That was in 1913. Doctor Allen's re-

searches, as it will be remembered, had led him to outline a strict régime and rules of living by which diabetic patients were to be guided and the main characteristic of which was, an absolutely exact determination of the diet, both qualitatively and quantitatively. Doctor Allen's method of treatment is known by his name and also by the expression "starvation treatment." He had come to the conclusion that the functional character of the pancreatic disturbance in many or most cases of human diabetes is worthy of all emphasis; for, if it is once established, the existing hopelessness regarding this disease is gone forever. A functional disease must be curable.

However, there still remained much to be done. While the way was pointed out clearly and appeared sufficiently easy to travel, it was not so simple a matter to determine the exact caloric, etc., constituents of the various foodstuffs that were permissible. It was here that Doctor Hill and Miss Eckman simplified the problem by furnishing exact and detailed information for the careful control of the protein and carbohydrate intake." "In carrying out the Allen treatment, they say, "the physician must think in Grams of carbohydrate and protein—it is not enough simply to cut down the supply of starchy foods; he must know approximately how much carbohydrate and protein his patient is getting each day."

It is not easy for a busy practitioner to figure out these dietary values, and, for this reason, the calculated series of diets given in this little book are of value. The first edition was printed in August 1915; the second edition appeared in two printings, both in 1916; the third edition followed in 1917, and the fact that now a fourth edition was called for bears witness to the service rendered by the little volume. This is of value not only for the physician but may be given to the patient, especially the intelligent diabetic patient, because he will be keenly interested in his food problems and will study the book industriously.

CURTIS: "HIGH FREQUENCY APPARATUS"

High Frequency Apparatus. Design, Construction and Application. By Thomas Stanley Curtis. Second Edition. Revised and Enlarged. 269 Pages. 150 Illustrations. New York: Norman W. Henley Publishing Company. 1920.

This is a practical treatise for electrical engineers, electricians, physicians, students and experimenters. It would be interesting to know how many physicians who use electricity for therapeutic purposes possess more than a superficial and empirical knowledge of this powerful and, potentially, dangerous agent.

Those who wish to know all about the high frequency current, its dangers, its uses, and the apparatus for producing it, will find here full information. There is also a chapter of information for electrical entertainers.

JONES: "INJURIES TO JOINTS"

Injuries to Joints. By Col. Sir Robert Jones, C. B., Ch. M., D. Sc. Second Edition. London: Oxford University Press. 1920.

Seldom has the Reviewer enjoyed reading a "small" book more than he has this veritable *multum in parvo*. While the little book is published as a volume of the well-known "Oxford War Primers," it is perhaps more useful to the civilian than to the military surgeon, for it contains many valuable hints in the ordinary injuries of joints—e. g., sprains, flat foot, fractures, dislocations, etc., which are so common in every-day life, and every practitioner will find in its pages much to be heeded.

Take for illustration the much-neglected "sprain" of an ankle. Sir Jones does not mince words in pointing out that, irrespective of the resulting swelling, an exact diagnosis of injury to ligaments can be made with ease, and he rejects as irrational and even harmful the customary treatment of cold bandages and compression. The treatment recommended is energetic, scientific and productive of good results.

No matter how many works on surgery one may possess, we advise every physician to obtain a copy of this book and familiarize himself with its contents. He will be rewarded by saving himself many annoyances and by producing better results in the treatment of traumatic injuries of the joints.

TWO QUIZ COMPENDS

A Compend of Human Physiology. By Albert P. Brubaker, A. M., M. M. Fifteenth Edition, Revised. 264 Pages. 26 Illustrations.

A Compend of Diseases of the Skin. By Frank Schamberg, A. B., M. D. Sixth Edi-

tion, Revised and Enlarged. 314 Pages. 119 Illustrations.

Both published by P. Blakiston's Son and Company. Philadelphia: 1921.

There has always been difference of opinion among teachers as to the use of compends by students; some approving, others condemning. What students themselves think of the matter is indicated pretty plainly by the number of editions the books referred to have passed through. It is true that, if compends are the means of keeping the student from thinking, and merely provide him with a convenient means of cramming for examination, their influence is not altogether good. But, when we consider the enormous amount of ground the student is expected to get over in a medical course, it becomes plain that he uses the compend in self-defense. Both the compends before us are so complete that they make very respectable textbooks. Especially in skin diseases, many doctors are glad to have a textbook so concise. It may be, that these books serve the physician better than the student.

KANAVEL: "INFECTIONS OF THE HAND"

Infections of the Hand. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand, and Forearm. By Allen B. Kanavel, M. D. Fourth Edition, Thoroughly Revised. Illustrated. Philadelphia and New York: Lea and Febiger. 1921.

When a monograph on a limited class of diseases reaches a fourth edition, there can be no question that there exists a large demand for the book and that the book has merit.

Indeed, the author has chosen a very interesting subject for a monograph, since infections of the fingers, hand, wrist and forarm have always been of great interest to every surgeon and general practitioner; partly because they are all but every-day occurrences in office and hospital practice, partly because medical men themselves, unfortunately, are often subjects to this class of infection.

Kanavel treats the anatomy, diagnosis and treatment of the infected limb not only in masterly fashion but extensively and, what is even more praiseworthy, conservatively.

He censures and rejects unnecessary, meddlesome and disfiguring incisions as likely to do much harm and, on the other hand, advises the use of the knife, even when the extent of the involvement can not be determined with exactness, if an error in diagnosis and improper delay may lead to dire results.

Bier's hyperemia, heat and other physical measures, while not conceded the places their advocates have claimed for them, are given appropriate places in the surgeon's armamentarium. The last war has caused the author to add a short section on gas-bacillus infection. One notes also an excellent chapter on the restorative treatment of impaired function.

Mechanically, the book is as good as preceding editions, only the index being in need of checking, as subjects are not always correctly paged.

Kanavel's book is an absolute necessity in the working library of every physician and surgeon.

PITZMAN: "HUMAN ANATOMY"

The Fundamentals of Human Anatomy. By Marsh Pitzman, A. B., M. D. 356 Pages. 101 Illustrations. St. Louis: C. V. Mosby Company. 1920.

That this is not a textbook on anatomy of the ordinary type, is indicated by its size, and explained by its subtitles: "Including its Borderland Districts. From the Viewpoint of a practitioner,"

Most textbooks on anatomy are so bulky that they perforce take on largely the character of works of reference. This author has attempted to produce a textbook from the standpoint of the practitioner which shall contain the essential facts of the subject in a volume of moderate size. Another feature at which he aims is, to make logic take the place of memorizing as far as possible, because a fact held by understanding is retained much longer and more effectively than one entrusted to memory merely. A careful examination of the book leaves the impression that the author has succeeded in attaining his object.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters

Queries

QUERY 6602.—"Liq. Sodii Ethylatis." W. A. H., Michigan, asks: "To one ounce of ethylate of sodium, how much water would you add to make a correct mixture for the removal of lupus, nævi, papillomata, etc.? Would you advise smaller proportions?"

Sodium ethylate, as procurable, is a white powder frequently having a brownish tinge, dissolving in water with a hissing sound, and having the property of splitting into alcohol and sodium hydroxide upon contact with even a small quantity of water or moist living tissue. In the latter case, owing to the liberation of its sodium, it acts as a very speedy and powerful caustic. *It should always be used in alcoholic solution and applied by means of a glass rod.*

The solution of sodium ethylate official in the "British Pharmacopœia," under the title "liquor sodii ethylatis", was prepared as follows: sodium, 1 Gram, absolute alcohol, 20 mils. Cautiously dissolve the sodium in the absolute alcohol contained in the flask, the latter being kept cool by a stream of cold water. This solution should be recently prepared. It may, perhaps, be made more conveniently by simply dissolving 20 grains of sodium ethylate in 80 grains of absolute alcohol. [This is the direction given in the 20th edition of the U. S. Dispensatory.—ED.] It should not be allowed to come in contact with water and should be kept in glass-stoppered bottles in a cool place.

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QUERY 6603.—"Aphonia." F. A. H, Missouri, writes: "I have the most peculiar case of simple aphonia, simple paralysis of vocal cords. Person well in every respect. Voice failed suddenly and no sound for sixty days. No pain; no swelling. What can be done under the circumstances?"

In your case of aphonia, the treatment very naturally would depend upon the cause. That is to say, it would have to be planned in accordance with occurrences that led up to the aphonia.

Since the patient is said to be well in every respect, does not complain of pain or swelling, is not tuberculous and (probably) not syphilitic, we are manifestly not dealing with a paralysis of one or more laryngeal muscles. We may, therefore, have either a neurosis or a psychosis.

For that sort of thing, atropine has been employed successfully, as has also zinc valerate. If this particular case of aphonia constitutes a psychosis, more "striking" treatment will have to be resorted to. The faradic current has been found useful, even carried to the degree of a moderate introlaryngeal faradic shock. Citelli reports good results from pushing the thyroid cartilage to one side with sufficient vigor to cause pain, taking the patient unaware. Almost invariably, it is said, this thyroid deflection will lead to an immediate verbal protest on the part of the patient.

While we have no knowledge of this particular case and nothing to base our opinion on, we would suggest that, if it is not a neurosis, or a psychosis, and if it is not largely hysterical, there may be a factor of malingering. We believe that Citelli is right in trying to surprise his patient. In many cases, an unexpected procedure may cause the patient to phonate.

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QUERY 6604.—"Bacterins in Cholelithiasis." Y. O. J., Missouri, asks: "Would you recommend the use of bacterins (in addition to other measures), in gallstones, following typhoid eighteen years ago? Patient is an obese woman, forty-five years of age and phlegmatic. At times, there is mucus in stools. I presume, she had infection of gallbladder by typhoid colon bacillus and some writers claim that it will persist for twenty or more years."

The use of bacterins in a case of gallstones would be justified only if there ex-

isted a condition of the gallbladder or of the biliary ducts clearly referable to certain bacteria which then, of course, would have to be represented in the bacterin used.

If gallstones are due to typhoid-bacillus invasion, eighteen years ago, the probability is great that the bacteria in question are imprisoned in the center of the concretions; and that none are present in the biliary passages. The question as to whether or not active typhoid bacilli persist in the biliary passages, could be determined by an examination of the feces, because, in such an event, the patient probably would be a carrier.

It happens frequently that typhoid bacilli and also colon bacilli are carried to the biliary ducts and eventually find there favorable conditions for multiplication—after having caused such changes in the mucous membranes and elsewhere that the gently-antiseptic action of the bile has been overcome.

In your particular case, that of a woman forty-five years of age with a history of typhoid fever eighteen years ago, we hardly believe that a typhoid bacillus bacterin would serve. As far as appears from your letter, there seems to be no definite proof of the presence of gallstones. Whether there is present an irritation of the biliary ducts, we are also not in a position to say. The presence of mucus in the stools need not stand in relation to any disturbance in the bile-producing mechanism. It may be due solely to a mucous colitis which would require largely intestinal antiseptic and general stimulating treatment.

However, thinking of the wisdom contained in the proverb of the proof of the pudding, it would be a very simple matter to subject your patient to the therapeutic experiment. The administration of a bacterin containing typhoid bacilli and, later on, one containing colon bacilli, would be perfectly legitimate and you could easily judge from the response whether one or the other is likely to accomplish anything in this particular case.

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QUERY 6605.—"Cyclical Synovitis?" C. F. F., Indiana, writes: "I have been reading CLINICAL MEDICINE for the last dozen years and have found the condensed queries very interesting and instructive. I now am sadly in need of help in the following case:

"M. B., female, age thirty, single; former weight 110 pounds, present weight 85 pounds. Father, mother, four brothers and three sisters all living and well, except that one brother, aged twenty-four, was told by the draft board that he had a leaky heart and lung trouble, and one sister, aged thirty-five, has been 'delicate' since childhood. This sister is married and has children.

"Patient's left knee became sore eight years ago; 'something would catch' on bending it. Two years later, it started to swell. The swelling would increase for two days and then return to normal in two days. This cycle occurred every two weeks at first but now occurs every nine days. There was a time, four years ago, that it did not swell for three months; otherwise as described. Doctor F., of Cincinnati, removed a fatty tumor from beneath knee-cap, three years ago, and Doctor G., of Indianapolis, examined it two years ago and recommended a splint.

"This woman sleeps and eats well. Says she is nervous and easily excited. Has intermenstrual flow, which is very light in amount and color. Regular menstrual period every twenty-eight days lasts only about one and a half days and occurs again on fifth day, but very slightly. No pain or discomfort to speak of."

After most careful consideration of the clinical data you present in the case of M. B., age thirty, we are absolutely unable to venture a diagnosis.

Cyclical swelling of the knee-joint is very rarely observed, especially without other very manifest factors. The fact that a "fatty tumor" was removed four years ago has not, we believe, any particular bearing on the case.

In tuberculous disease of the knee-joint —which you seem to suspect—we have pain in the early stages, with stiffness and limping, the limitation of motion being always first noted in the direction of hyperextension. Wasting of the muscles, both of the thigh and calf, is present early. Swelling of the joint is perhaps the most striking of all signs, the whole knee being involved in an ovoid enlargement, which, on palpation, feels like a gelatinous mass rather than a freely fluctuating synovial sac. In some cases, swelling seems to be dense and of almost bony hardness. In others, fluctuation in the joint is present. Invariably, heat about the affected joint is increased, and it is considered by careful observers to be a valuable indication of the progress of the case.

Chronic synovitis may be mistaken for tuberculosis of the knee-joint.

It is possible that in this case you have to deal with a chronic joint change with overgrowth of the synovial membrane, and

the tumor which was removed may have been a mass of papillary overgrowth, attached or pinched off and left free in the joint cavity. As you are aware, such free bodies, occasionally found in the joints (especially the knee), are known as "joint mice."

It is evident, some sort of an arthritis obtains, probably of the nonseptic type, otherwise it seems to us the patient would have succumbed or lost the extremity long ago.

A very careful blood examination should be made in this case and, had we a clearer history together with such laboratory report, we might be able to venture some useful suggestions.

A colleague suggests that the patient be given a tentative dose of von Ruck's antituberculosis vaccine. He says: "I should expect a reaction in that joint, and subsequent improvement."

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QUERY 6606.—"Malaria—Cerebral Type?" E. R. T., Tennesse, describes the case of a baby, seven months of age, well nourished, breast fed, no previous sickness, third child, all children living. Mother and father in good health, no history of tuberculosis in either family. Was noticed to have slight temperature (101°) on August 12. I put baby on antimalarial treatment, as the two older children had just gotten up from a light attack of malaria, which lasted four days each. Quinine had no effect whatever, on temperature, and the drug was kept up in 2-grain doses every four hours for four days, then discontinued. During this time, temperature ranged from 103 to 105°, never getting below 103°. Baby suffered very little, if any, and nursed regularly, except when it was nauseated from medicine.

"I had three other physicians in consultation at different times and the following diagnoses were made: Malaria, acute pyelitis, meningitis. Tests were as follows: Widal negative; malaria, negative; spinal fluid, no diplococci intercellularis, increased leukocytes; urine, negative. Kernig's sign present during the last three days of sickness; pupils, reaction to light, both equal. No rigidity of neck except when having spasm during last three days of life. Nursed until last day and took its medicine freely up until then. Spinal fluid was clear and under a little pressure. Treatment was antimalarial for four days, then formin, gr. 1, every three hours; ice-cap to head, salol, gr. 1, every four hours. Fever was never below 103 or over 105°, but nothing had any influence on it.

"Baby died in convulsions, which it had been having frequently for eighteen hours, on September 4. I am thinking there was some spinal infection; but, what was it?"

As you know, it is much easier to ask "what was the trouble" than to answer the question. You state that the Widal was negative, no plasmodiums of malaria were found in the blood, spinal fluid was free from diplococci intercellularis and nonturbid, and the urine was negative. The negative urine would naturally lead one to exclude pyelitis; while the negative Widal and the absence of other definite signs of typhoid, range out enteric fever. Certainly, one would imagine that, in any ordinary form of malaria, 2 grains of quinine, given every four hours for four days, would have caused a marked and progressive reduction of the temperature.

We have here not a typical picture of meningitis; neither does the child seem to have suffered from any pulmonary complication, suppurative otitis or gastrointestinal disease. Indeed, there seems to have been no intense pain, the statement occurring in your letter that the child "suffered very little and nursed regularly."

Under the circumstances, despite the fact that the temperature remained high until death notwithstanding the administration of quinine, we are inclined to believe that you had to deal with a profound malarial toxemia of the cerebral type, and we are confirmed in this opinion by the fact that two other children in the family had just recovered from malaria.

However, one must not forget the possibility of socalled abdominal influenza. In this disease, the temperature ranges high from the first and cerebral symptoms (meningismus) may present on the third or fourth day.

We have no idea, of course, whether thorough elimination was maintained and the child sponged frequently. Personally (although we have practiced in the South), we would look for more or less trouble if we gave a child 2 grains of quinine sulphate every four hours for two days; this despite the fact that Holt and other writers recommend this dose and state that relatively much larger doses of quinine are required for young children than for adults, and that "an infant of a year with a sharp attack of malarial fever will usually require from 8 to 12 grains of the sulphate daily." Holt even states that he has found it necessary to give double this quantity and has seen no cerebral symptoms.

On the other hand, the writer has seen most distressing symptoms follow the ad-

ministration of quinine in such doses and, for many years, has been able to secure perfectly satisfactory results from the rather frequent administration of comparatively minute doses of quinine hydroferrocyanide. It is a thankless task, however, to criticize another man's treatment and this comment is simply ventured because you undoubtedly are particularly interested in the case under consideration. It might have been well, also, to remove this child from the breast and to have given nothing but thin barley water or fruit juices for thirty-six hours.

You do not mention the presence of any eruption, petechiæ or describe the character of the stools. Kernig's sign may be present in any one of several diseases, but there is little question here that the meninges were involved and that death resulted from profound toxemia.

We sincerely wish that we were able to offer a more definite diagnosis but the picture is obscure and if you, on the ground and observing the child constantly, were at a loss, we at this distance are infinitely further at sea.

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QUERY 6607.—"Neuritis." L. P., Texas, writes: "Kindly let me know what you would suggest, internally and externally, in a case of neuritis of the thighs—worse on the left side. I have already used a good many things but without obtaining the desired results."

The present writer sincerely wishes that he were able to make some really helpful therapeutic suggestions in the case of neuritis of the thighs, to which you refer.

Naturally, in order to treat such cases effectively, it is essential to know something of underlying conditions, and, if possible, the special cause, such as, gout, gonorrhea, syphilis, alcoholism, etc. It should not be forgotten, of course, that a bilateral neuritis of the lower extremities, involving the area supplied by the sciatic nerve, often makes its appearance in diabetes. Occasionally, it is true, such a neuritis may be due to exposure to cold or wet. The pain then, however, is usually unilateral, located in the upper thigh, the onset is gradual and later becomes constant, often with paroxysms which are worse at night, on walking, or any sudden movement. Frequently, the severity increases and the distribution extends.

The nerve is tender on pressure over the sciatic notch, mid thigh, popliteal space, and outer side of fibula. As a rule, the patient is inclined to walk with the knee bent, on his toes, to relax the nerve.

Duration of the disease is variable, it often proving obstinate, and remissions are common.

Invariably, a bilateral sciatica suggests *general* and not local cause (diabetes, gonorrhea, syphilis, etc.). Under the circumstances, therefore, it would be well to go into the history of this patient very thoroughly, also to have specimens of urine and blood examined. It might also be well to ascertain the condition of the prostate gland. Generally speaking, elimination should be maintained, the patient should be given cinchophen for a somewhat prolonged period, in alternation with a combination containing: calcium carbonate, grs. 10, lithium carbonate, gr. 1, colchicine, gr. 1-500 aromatics, q. s. Occasionally, some such a formula as: salicylic acid, gr. 1, calcidin, gr. 1-3, colchicine, gr. 1-250, bryonin, gr. 1-128, macrotoid, gr. 1-12, boldine hydrobromide, gr. 1-64, aromatics, q. s. will be found to be more effective than cinchophen.

The patient should be carefully dieted, and, during the paroxysm, should be kept at rest in bed, hot moist compresses, for instance, a towel wrung out in hot Epsom-salt solution) being applied along the course of the nerve. Subsequently, an ointment consisting of guaiacol, grs. 40, methyl salicylate, grs. 40, menthol, grs. 3, lanum and petrolatum to make oz. 1, should be inuncted over the painful area.

Acupuncture, nerve-stretching, and injections of a 2-percent procaine solution have been recommended. Some writers insert the needle into the nerve near the sciatic notch, and inject 1 or 2 mils (Cc.) of a 2-percent procaine solution, and then follow with 50 to 100 mils (Cc.) of warm normal saline. Such injections are repeated at intervals of a week. In this writer's opinion, such treatment is only called for in the most intractable forms of sciatica.

It is unnecessary, of course, to point out the necessity for careful dieting in such cases. Coffee, tea, alcohol, tobacco, and red meats should be strictly prohibited; as there is usually a deficiency of phosphorus in the system of such patients, nuclein, vitamine-bearing foods, and the phosphates of cal-

cium, iron and manganese may be administered with advantage.

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Query 6608.—"Nephritis Following Scarlet Fever." G. A. B., Kansas, forwards a specimen of urine for examination and submits the following history: "Dora O., twelve or thirteen years old, had always passed a large amount of urine, at least for a number of years; heavy drinker of water and a great eater of meats. Would often pass between three to four quarts of urine in twenty-four hours. Two years ago, was operated on for ruptured appendix. Last winter, had scarlet fever, severe case, impossible to produce a perspiration; nothing that I did could make her perspire. Found a nephritis. Not so much albumin now as formerly. Have given her apocynoid granules, Hormotone, Basham's mixture, etc., etc., but still the urine will not clear up. She passes close to three quarts of urine a day, but feels 'as well as ever.' Now, the question with me is: What is the prognosis Will she ever get well, and is it of any use to treat her or shall I let Nature take its course? Any light on the subject will be appreciated."

Your patient, Dora O., whose urine you submitted for examination, of course, suffers from nephritis which you had already diagnosed, and which is apparent from the history. You will notice that the specific gravity is rather low which would be explained by the large quantity of urine passed. The acidity is not very excessive, but the total urea eliminated is insufficient.

The albumin which is present and also the red-blood corpuscles and the granular casts indicate a severe strain upon the kidneys, and active inflammatory changes.

It is quite possible that a bacterin (either autogenous or stock) containing colon bacilli and staphylococci may bring about sufficient stimulation to help the organism overcome the active process, after which a restitution of the kidney tissue to normal would, of course, be a question of time and proper management.

You say that this child has been in the habit of drinking large quantities of water and of eating much meat. Her trouble undoubtedly was aggravated through the attack of scarlet fever, last winter, and also by the fact that her skin seems to have lost its functioning power to some extent.

In this patient, we would be inclined, first of all, to stress the importance of maintaining a strict diet for a sufficiently long time to enable the kidneys to overcome the effects of the strain. Even though at present there is a tendency to permit more generous diet in nephritic patients, we believe that the old-fashioned milk diet is a good one. The protein requirements of the body can be supplied very well in this way and any lacking portion may be made up with an occasional fresh egg or a broiled chop. Under no circumstances, though, should this young girl be permitted to eat *largely* of meat. Especially should her parents be cautioned against permitting her to eat anything that has been fried, for the reason that fried meats are spoiled meats, as far as digestibility and assimilability are concerned.

It is possible that the skin may be made to function by means of epsom-salt spongings (1 tablespoonful to the quart), mornings and evenings. Also, the patient should be ordered to do a moderate amount of gentle exercise of such a nature as to encourage perspiration. The skin together with the intestines must be made to relieve the kidneys of part of their work, so as to give them a chance to rest. For that reason, it will be well, in addition to stimulating the skin function, to keep the bowel movements in a mushy state, not permitting them to become hardened. It is not necessary to induce diarrhea unless the condition of the kidneys becomes much worse than it is. Apocynoid is a very good remedy in cases in which the secretion of urine is insufficient. However, in view of the fact that your patient secretes three quarts, or more, a day, apocynoid is hardly indicated here. In this case, a gentle antiseptic undoubtedly would do good work; and for that our preference is arbutin (from uva ursi), or, then, hexamethylenamine. Our observations have given us the impression that arbutin exercises a very soothing and gently-stimulating action, and very often we prefer it to hexamethylenamine.

While Hormotone is a splendid general tonic, we believe that, in this particular instance, Nephritin would offer a better hormone remedy since its action is selective upon the renal tissue.

Periodically, it will be well to give this patient courses of intestinal antiseptics (the sulphocarbolates). It might also be well to let her take yeast for periods of a month at a time, say.

You do not inform us as to the patient's general condition; whether she loses strength or not; whether she keeps up in

school, and other circumstances. It goes without saying that she should not be worked hard and that sufficient rest must be insisted upon. It will be wise for you to make a uranalysis every week, and we should be interested in receiving a report from you together with a specimen for examination, say, once a month. Needless to say, we should like to be kept in touch with regard to this case and shall be very happy to consult with you whenever you wish.

By no means would we care to undertake the responsibility of letting Nature take its course, as you suggest. Nature is a good physician, but, unaided, she is apt to bungle the job sadly. The natural efforts at restoration of body functions require guidance as to direction, extent and quality.

Reverting once more to the milk diet: we have found it an excellent plan to give unpasteurized milk wherever this is possible without danger of contamination; that is to say, where the milk is obtained from a herd that is known to be free from infectious disease, where the cows are kept clean, and milk and dairy work are done in a thoroughly unobjectionable manner. In your part of the country, it ought to be possible to secure such milk. The point is, that pasteurizing interferes with or destroys one of the essential vitamines. Unpasteurized milk retains that. Of course, it should be taken fresh or but gently heated.

Moreover, it will be well to dilute the milk with equal parts of Vichy or charged water (siphon), or then to add, say, two teaspoonfuls of lime water to each tumblerful of the milk.

There are many other points to be considered in the management of such a case. We lack the necessary information upon which we might base definite suggestions. Tonics, alteratives, and so forth, may be thought of and will have to be prescribed in accordance with existing conditions.

ACIDOSIS

Gilmour (*Can. Med. Assn. Jour.*, Aug., 1921) reaffirms that the best known type of acidosis is that associated with diabetes and the production of acetone bodies which change adversely the normal (bicarbonate) alkalinity of the blood plasma. The acidosis of nephritis is in no way related to acetone bodies, but is due to retention or an overplus of the normal acids of metabolism.

In the first condition, it is logical to administer alkalies which, the author says very properly, is not always successful in and of itself. In fact, success is largely contingent on the choice of alkali; calcium carbonate is the best and most efficient. This was satisfactorily shown many years ago by Croftan, of Chicago.

Aside from this, one cannot reasonably doubt that changes in the diet are needed for acidemic persons generally. Fats must be very largely deleted. Salt, too, is to be taken very sparingly. To aid in the elimination of acetone bodies, furthermore, it is considered good practice to allot the patient 1,000 mils. (Cc.) of fluid during every six hours.

PAINS OF TABES AND CACODYLATE OF SODIUM

Marechal (*Urolog. and Cut. Review*, June, 1921) uses 50-percent cacodylate of sodium solutions for intravenous injections in syphilis, showing that the danger zone in the use of this drug is far removed from that stated by American authorities. Since his publication of this fact in 1918, many therapeutic investigations have been undertaken in France with this remedy, and physicians are beginning to use methylarsenates with less timidity than formerly. Rozies and Miquet enumerate various affections in which this organic arsenical compound may be employed in massive doses. Among other uses, it is of special value in ezcema.

Encouraged by results obtained in other diseases, the author has tried it in five cases of painful crises of tabes in which the usual treatment was inefficacious.

The dose employed was 1 to 5 Grams intravenously, beginning with 1 Gram (15 grs.) and increasing by 1 Gram for every injection. In one case, 48 Grams were thus administered; in another, 15 Grams; in another, 19; in another, 55 and in another 28 and 5/10 Gram.

In no case was there any general reaction and the pains were quickly ameliorated by these large doses of the cacodylate of sodium.

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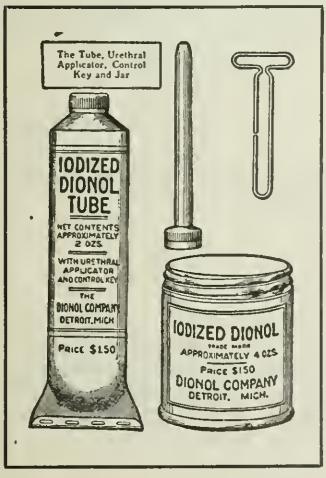
53-55 Hope Street **Brooklyn, N. Y.**

Sole Distributors: **Intravenous Products Company of America, Inc.**

121 Madison Avenue, New York, N. Y.



GENITO-URINARY

DISEASES

DOCTOR: Have you heard of our new product for G. U. Work

IODIZED DIONOL

Phenol coefficient .21

In Acute or **Sub-acute Gonorrhea** the results are certainly exceptional. It materially shortens the duration of the disease, tends to prevent stricture, quickly relieves strangury, promotes rapid healing and opposes extension and complications. It is equally effective in Endometritis, Vaginitis, Cervical Erosion, ulceration, etc. The technique is simple and saves **time.** The cost is less than by other methods.

PRICES per single tube or jar $1.50 each, or $1.25 each if in half dozen lots or more. Iodized Dionol is not yet carried by your druggist. Ask him to order for you, or order and remit direct to us temporarily. Samples and literature on request.

THE DIONOL COMPANY Dept. 20, Garfield Blvd DETROIT, MICHIGAN

News Notes Department

Codliver oil as a ration has come to be highly esteemed in recent years. When, in various parts of Europe, the task of provisioning the underfed populations was undertaken, one of the things relied upon for quick and tangible results, especially in children, was codliver oil. Almost invariably it has figured in the stock rations resorted to against rickets in children.

This oil is rich in the anti-rachitic vitamine, which in this medium is readily appropriated by the needy organism. Many children, in whom the clinical picture is scarcely to be recognized as actual rickets, would benefit greatly by use of the oil supplementary to the ordinary fare. Scott & Bowne, Bloomfield, N. J., supply a clear Norwegian codliver oil (as well as an emulsion) of the very highest grade.

Prunes in the dietary. The general interest now evinced in the vitamines, as essential elements abounding in the natural foods for the maintenance of growth and well being, prompts the thoughtful to consider the things that comprise their daily fare. Among others, the physician is being induced to pay more attention to dietetics, his concern extending very properly from his own immediate family to his patients as they come. He is not a mere prescriber or dispenser of drugs. There are other factors in life to reckon with. It interests him to know if the patient is eating correctly.

Prunes may often be made part of a well balanced and nourishing meal. They are laxative; rich in iron; and contain a fair quantum of vitamine principles. The best come from California, we are told, under the brand-name "Sunsweet."

When seeking a location or needing an assistant or desiring a hospital appointment or a laboratory position, there are at least two ways of going about to find what is wanted. One way is to advertise in the columns of the leading medical journals and this is often and perhaps usually successful. The other way is to consult the medical broker whose business it is to find locations for doctor and assistants and positions. He brings the seeker and the sought-for together, as we may say. He is naturally in touch with both and logically the agent to make the connections desired. To be sure there is usually a registration fee or fee of some sort for the service rendered but if reasonable no one will object to that. The main thing is to find what is wanted.

The Medical Echo Co., Lynn, Mass., are engaged in this work and have been so engaged

TESTOGAN — **For Men**

THELYGAN — **For Women**

Formula of Dr. Iwan Bloch

After seven years' clinical experience these products stand as proven specifics.

INDICATED IN SEXUAL IMPOTENCE AND INSUFFICIENCY OF THE SEXUAL HORMONES

They contain SEXUAL HORMONES, i. e., the hormones of the reproductive glands and of the glands of internal secretion.

Special Indications for Testogan:
Sexual infantilism and eunuchoidism in the male. Impotence and sexual weakness. Climacterium virile. Neurasthenia, hypochondria.

Special Indications for Thelygan:
Infantile sterility. Underdeveloped mammae, etc. Frigidity. Sexual disturbances in obesity and other metabolic disorders. Climacteric symptoms, amenorrhea, neurasthenia, hypochondria, dysmenorrhea.

Furnished in TABLETS for internal use, and in AMPOULES, for intragluteal injection.

Prices: Tablets, 40 in a box, $2.00; ampoules, 20 in a box, $3.00.

EXTENSIVE LITERATURE ON REQUEST.

CAVENDISH CHEMICAL CORPORATION

Sole Agents

295 Pearl Street *Established 1905* **New York**

Where Ignorance is not bliss— the Doctor should be wise

If there is one subject in the world on which the majority of people stand in need of authoritative information it is on the subject of food.

This lack of definite knowledge explains why the percentage of nutritional disorders is so high. Also why such a large proportion of our population is under-nourished and nervous.

One food containing the elements required for nutritional balance is Grape-Nuts—made from whole wheat flour and malted barley—eaten with cream or milk.

A good part of the starch in Grape-Nuts is converted into dextrin and grape-sugar by diastatic action and the exceptionally long baking period of twenty hours.

Grape-Nuts contains the essential mineral salts, calcium, phosphate of potash and iron. It helps build body, nerve and brain cells, replenish the iron content of the blood, and increase nutrition of tooth and bone structure. Eaten with milk or cream, Grape-Nuts is a well-balanced food.

Why not instruct a few of your chronic cases to eat Grape-Nuts as a cereal, or made into a tasty pudding for dessert? See if this does not fit in with your medical treatment of the case.

Samples of Grape-Nuts, for individual and clinical test, will be sent on request to any physician who has not received them.

Postum Cereal Company, Inc.
Battle Creek, Michigan, U. S. A.

for many years. They have at all times a list of locations, openings, partnerships and assistantship opportunities, for the acceptance or refu. of clients.

There are cases as we all know that are best treated in an institution, where facilities are at hand for dieting, bathing and proper exercise and where, with nurse and resident doctors in attendance, the patient may be kept as he should under constant surveillance, to see that the treatment prescribed for him is being carried out to the letter. This is scarcely, or at least not so well, to be carried out in the home, especially in the case of many a confirmed invalid, or chronic, whose apathy operates against the treatment if left to himself alone; which also is true of many a neurasthenic, beset by mental confusion, lapses of memory and erratic tendencies.

When institutional care seems advisable the North Shore Health Resort may be just the place for commitment. The best of professional care is assured there for patients of this class. This sanitarium is located in Winnetka, a suburb of Chicago, seventeen miles north of the city proper.

One of the commonest and most distressing of ailments the doctor has to treat is hyperchlorhydria. This is also the most resistent of ailments and after a long course of medication, involving the use of many remedies, the prescriber has often to acknowledge failure.

Alkalies are frequently useful; at other times of no use whatever. Bismuth subnitrate, an old remedy for the relief of gastralgia or epigastric distress often fails signally. And so on, the doctor may go through the gamut of orthodox remedies without success.

Hence the interest manifested in Neutralon, now supplied by Dr. H. Kirbach, 227 Fulton St., New York City. This is aluminum silicate, prepared for oral use, with special reference to solubility. The salt has unusual antacid properties, along with a certain desirable astringency.

From Denmark. Our readers will find in the advertising section this month an announcement of a Danish product for which a large eventual demand is predicted by those who already know its merits. The importing and selling agent for this country is Carl Nielsen, 4886 North Paulina St., Chicago.

Incitamin, as it is called, is a dusting powder derived from pancreatic salivary and other glands, containing their various extractives, including the enzymes and protonucleins of the glandular secretions.

It has been used abroad with notable success for indolent wounds and resistent ulcers; to initiate and promote the healing of such lesions. After some applications, granulations are usually observed to form and the process of repair to go on to a good end result.

Literature, with case reports may be had by writing the importer at the address given.

Dermatone Annihilates Acne. Zematol Eradicates Eczema.

ACTIVE CATHARTICS OR PURGATIVES THAT PRODUCE A WATERY STOOL DO NOT GIVE GOOD RESULTS IN

Habitual Constipation

as the digestive secretions are carried off and a period of constipation follows until the secretions again accumulate and the natural process of digestion and assimilation is resumed.

A mild tonic laxative gives the best result and you can obtain this with **Cascara Comp. Tablets (Killgore's)**, as they stimulate the secretions, give an easy natural movement without griping and do not become ineffective by continued use.
Dose: One or two tablets at night.

Liberal Sample and Formula Sent to Physicians on Request

CHARLES KILLGORE

Manufacturing Chemist Established 1874

82 FULTON STREET NEW YORK

It Is Nature's Aid

in protecting the teeth

Each application of PEPSODENT produces the six following desired results:

1 An increase in salivary flow.

2. Reduced viscosity in saliva.

3. An increase in ptyalin — the starch digestant in saliva to remove starch deposits which adhere to tooth surface.

4. An increase in alkalinity to neutralize acids which cause decay.

5. A two-fold attack on mucin plaque.

6. High polish, so plaque adheres less easily.

The saliva, with its ptyalin and alkali, is Nature's own tooth protecting fluid. Pepsodent stimulates it in a natural way. Alkaline dentifrices, based on soap and chalk, have the opposite effect.

Millions now use Pepsodent, largely upon recommendation by dentists.

No soap—no chalk

Pepsodent contains no soap and no chalk. Any alkaline tooth paste brings opposite effects.

It contains nothing harmful. Six years of exhaustive experimentation and tests prove this.

Ask the Dental Department any questions. Write for scientific literature. Send the coupon for a tube to test and use at the chair.

Pepsodent PAT. OFF. REG. U.S.

A Modern Dentifrice

An acid tooth paste which brings six effects desired by modern authorities

THE PEPSODENT COMPANY, 693
7419 Ludington Bldg., Chicago, Ill.

Please send me, free of charge, one regular 50c size tube of Pepsodent, with literature and formula.

Name .....

Address .....

Enclose card or letterhead

The Official Bulletin of the Chicago Medical Society of May, 1921, page 29, states, that in the surgical treatment of cleft palate and hare-lip Dr. Logan advises, "The employment of Equisetene in the lip instead of horse hair."

On Page 30 the Bulletin also states that "Dr. Edward H. Ochsner called attention to the use of Equisetene as a suture material and stated that for plastic work this material has no equal or superior. One can make scarless scars if the stitches are drawn small enough. This material produces no irritation and consequently there is no stitch mark. He has used it for a year, and found that it has all of the elasticity of horse hair, but is thinner and three times as strong."

The Bulletin further reports that Dr. W. H. G. Logan said: "He agreed with Dr. Ochsner in regard to the use of Equisetene. In his hands it seems to be something he could depend upon more definitely than he could upon horse hair and he had recently substituted it for horse hair."

The Best Way of Applying Heat to the body surface, for all purposes, is to utilize electricity which now is supplied in towns and cities generally. For such applications several appliances are to be had, among them the Sterling Therapeutic Lamp. With this lamp almost every degree of heat may be utilized, from the most intense to the mildest.

The pain and stiffness secondary to localized congestion; evolving either muscular or articular structures frequently subside with such treatment. With or without adjunct internal treatment results are bad in lumbago, muscular rheumatism and recurrent neuralgias. So too may sprains, torticollis and kindred conditions may be treated, with entire or partial success.

Some skin diseases, also, yield to fairly high degrees of heat intelligently applied, especially such as are indolent or of bactericidal origin, as lufus, erysipelas, sycosis, chronic eczema, acne and furunculosis.

Anyone wanting information on the therapeutics of light and heat should write the Sterling Lamp Company, 540 Garfield Ave., Chicago, for an interesting pamphlet.

The venereal diseases until recently were kept in concealment, out of discussions and the public prints. But fate decreed that with the onset of war they should have wide publicity. And as a result the general public today knows more truth in reference to these diseases, their transmission and their seriousness, than ever before.

For one thing, the realization has come that syphilis is dreadfully prevalent and, in the cities at least, a constant menace; also the fact that sermons are futile as a means of dissuading the normal male from harkening to the call of passion. At last we know that the only sensible course for parents and teachers is to describe the situation frankly to every mother's son and

The Management of an Infant's Diet

In extreme emaciation, which is a characteristic symptom of conditions commonly known as

Malnutrition, Marasmus or Atrophy

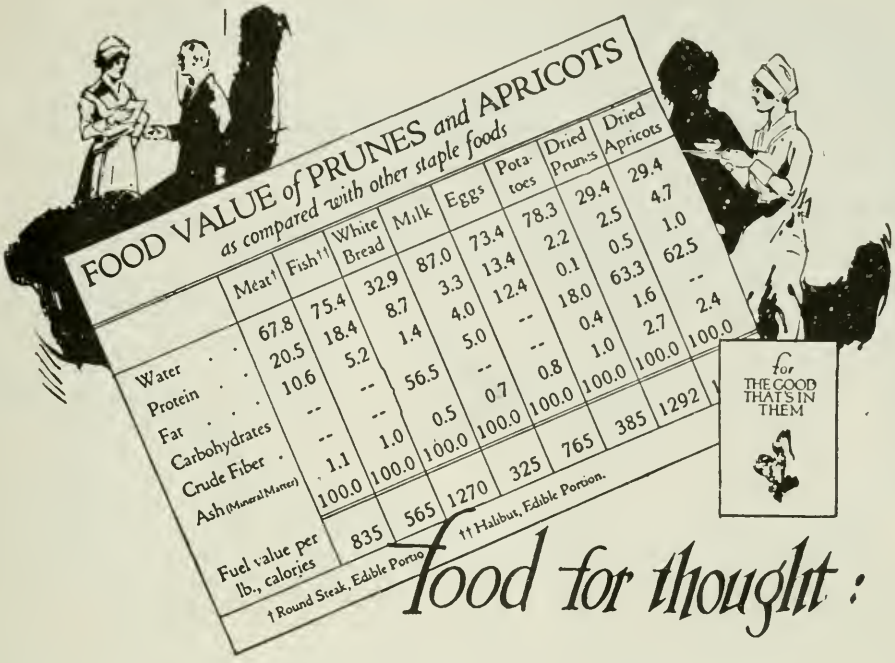
it is difficult to give fat in sufficient amounts to satisfy the nutritive needs: therefore, it is necessary to meet this emergency by substituting some other energy-giving food element. Carbohydrates in the form of maltose and dextrins in the proportion that is found in

Mellin's Food

are especially adapted to the requirements, for such carbohydrates are readily assimilated and at once furnish heat and energy so greatly needed by these poorly nourished infants.

The method of preparing the diet and suggestions for meeting individual conditions sent to physicians upon request.

Mellin's Food Company. Boston, Mass.


FOOD VALUE of PRUNES and APRICOTS
as compared with other staple foods
Meat† Fish†† White Bread Milk Eggs Potatoes Dried Prunes Dried Apricots
Water 67.8 75.4 32.9 87.0 73.4 78.3 29.4 29.4
Protein 20.5 18.4 8.7 3.3 13.4 2.2 2.5 4.7
Fat 10.6 5.2 1.4 4.0 12.4 0.1 0.5 1.0
Carbohydrates -- -- 56.5 5.0 -- 18.0 63.3 62.5
Crude Fiber -- -- -- -- -- 0.4 1.6 --
Ash (Mineral Matter) 1.1 1.0 0.5 -- 0.7 1.0 2.7 2.4
100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0
Fuel value per lb., calories 835 565 1270 325 765 385 1292
† Round Steak, Edible Portion.
†† Halibut, Edible Portion.
for THE GOOD THAT'S IN THEM

food for thought:

Forget, for the moment, that prunes and apricots can be prepared in so many ways to entice the most palate-weary patient. Set aside the importance of prunes as a laxative from Nature's own pharmacy. But consider this:

Nutrition investigators generally agree that the *carbohydrates* of our food [and *not* the nitrogenous compounds] are the source of muscular energy for the body. Run your finger along the carbohydrate line in the table at the top. Prunes and apricots "stack up" pretty high—don't they?

Consider now the *mineral* matter in dried fruits. Prunes especially are high in iron. Also they contain certain salts and organic acids which improve the quality of the blood and react favorably on the secretions.

And now—consider this: the experiments of Osborne and Mendel prove that deciduous fruits furnish water-soluble vitamin; and that prunes apparently are richer in this dietary essential than apples and pears.

Food for thought? Well, rather!

Every physician, dietitian and nurse will find plenty of "dietetic meat" in our health-brochure, "For the good that's in them." Sent free! And, if you ask for it, we'll send along an advance copy of the 1922 Sunsweet Recipe Packet. California Prune and Apricot Growers, Inc., 1184 Market St., San Jose, California ‹ 11,000 growers.

SUNSWEET
CALIFORNIA'S NATURE-FLAVORED
PRUNES & APRICOTS

teach him how to safeguard himself from infection, when exposed to it.

Several prophylactic packets have been devised of late; a very handy one is that put out by the Androp Hygienic Company and described in our pages this month. Every doctor should write for a sample, with the view to being of real service to those who look to him naturally for advice.

It is a matter often commented on that great surgeons, as a class, pay alert attention to details, wherein presumably lies one reason at least for their success. For in surgery, little things in many instances count tremendously. A defective bit of suturing material or ligature, for example, may be enough to weigh against the recovery of a patient.

Many surgeons will use only Armour-made ligatures, which are made from lamb's gut, selected from a very large stock of material. And no one in the business has such opportunity for selection as the Armour Laboratories. In consequence their ligatures have strength and pliability. They list all sorts: plain, chronic, iodized, etc.

A frequent need in practice is a solution that is at once antiseptic and alkaline, one that is antiseptic without being the least irritant, alkaline to just that degree where it is soothing. Such a solution makes a good application to either skin or mucous surface (but chiefly the latter) when subject to inflammation, with the usual features, towit: redness, swelling, pain, hypersecretions.

A very good example of this sort is Alkalol, made by the Alkalol Co., Taunton, Mass. Many practitioners are finding it extremely useful every day in the treatment locally of rhinitis, pharyngitis, cystitis, etc. It is excellent for use as a nasal spray, a mouthwash or a gargle, bringing not only a sure degree of comfort but aiding appreciably toward cell repair and return to the normal condition. Samples may be had on request.

Treating patients with their own attenuated blood serum, which is given by injection, stands out in medicine as a new departure. Quite a number of physicians are now practicing autohemic therapy, as it is called. One of the leaders in the new field, and an authority on the subject, is Dr. C. B. Graf, of 320 West 87th St., New York City. He is treating many patients in his offices daily, while others of smaller practice are with him enthusiastically reporting good results.

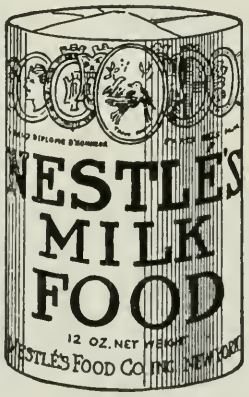
But good results we are cautioned depend on proficiency and preparation of the injected materials. The blood must be thoroughly hemolised and attenuated, which requires special apparatus for this purpose; it cannot be done by hand. Dr. Graf himself has designed a Hemolyser that concusses 900 times per minute. For description and price see our advertising section.

To devise a diet is not so very difficult on paper. It is the practice that presents difficulties in many cases. Knowing the caloric value of different food items, their composition in terms

When A Baby Must Be Weaned

there is no food that can be used to replace its mother's milk, with greater convenience and benefit, or less trouble and danger, than

Nestlé's Milk Food



Made from pure cows' milk, malt, cane sugar and wheaten biscuit, Nestlé's Milk Food enables the painstaking physician to provide the infants under his care with a digestible and nourishing food that assures every advantage of properly modified milk, with gratifying avoidance of inconvenience or danger.

There is a constantly increasing number of physicians, therefore, who are finding in Nestlé's Milk Food, not only modified milk at its best, but a food that means "in weaning the baby," a new era of improved health and progressive bodily growth.

NESTLÉ'S FOOD COMPANY

112 Market Street, San Francisco
Nestlé Building, New York

KELLOGG'S BRAN

cooked and krumbled

WORKS WONDERS

if eaten regularly each day

BRAN'S principal function as a nature-food, as you know, is to clean and purify the bowels without irritation or discomfort. But bran is not a "remedy"; it forms no habit; it does not aggravate intestinal conditions.

You'll be strong for KELLOGG'S BRAN, cooked and krumbled, when you personally know its powers! We believe that if you will try it yourself for one week (at least two tablespoonfuls daily or as much as necessary in chronic cases) you will continue its use regularly as a preventive as well as a relief and prescribe it with confident expectation of results.

Kellogg's Bran, cooked and krumbled, unlike common bran, is delicious as well as beneficial. It has a most appealing nut-like flavor. Eat it as a cereal or sprinkle it on hot or cold cereals. Kellogg's can be used in endless ways such as in raisin bread, muffins, griddle cakes, macaroons, cookies, etc.

DO THIS, IF YOU PLEASE:—Drop us a card and we will promptly forward you a large package of Kellogg's Bran without the slightest obligation on your part. Know personally what Kellogg's Bran CAN AND WILL do for your comfort—and health! Send that card today!

Kellogg's
BRAN GRIDDLE CAKES

1 cup Kellogg's Bran; 1 cup flour; 1 tablespoon sugar; ½ tablespoon butter substitute; ½ teaspoon salt; 1 teaspoon baking powder; 1 cup milk; 1 egg. Mix dry materials, add egg slightly beaten and milk and butter substitute. Beat thoroughly and bake on a hot griddle. Serve with butter and syrup. This will make 20 cakes.

Kellogg's
BRAN BREAD

2 cups Kellogg's Bran; 1 cup boiling water; 1 tablespoon shortening; ⅓ cup molasses; 1½ teaspoons salt; 1 compressed yeast cake soaked in ⅓ cup lukewarm water; 4 cups flour. Pour boiling water over Bran. Let stand ½ hour. Add melted shortening, molasses, salt, yeast and flour. Beat well and let rise. Turn into buttered bread pans. Let rise again and bake for one hour.

Kellogg's *Look for this signature W. K. Kellogg*

the original BRAN - *cooked and krumbled*

of fat, carbohydrate, proteid, etc., and in a general way their degree of assimilability, one may write out, as he does a prescription, a list of things to eat for this patent or the other. Throughout it may conform to the advises of the text-books and the recommendations of the best writers on the subject. But when it comes to practice, the patient may revolt.

No food is acceptable to all patients alike, still when nourishment in concentrated form, taxing the digestive functions as little as possible, Bovinine should be thought of; a sample may be had from the Bovinine Company, 75 West Houston Street, New York.

For quick and tangible results, it is the belief of a growing quota of physicians that the intravenous method of giving drugs to the sick is the method of choice beyond debate or question. More and more are resorting to it in conditions formerly ministered to by oral medication. In a few years we have seen dosage by the syringe and needle supplant dosage by the spoon. One after another new drugs have been added to the list of those amenable to use by injection, till now it is quite lengthy.

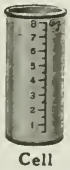
We have in mind the list of Geo. A. Breon & Co., of Kansas City. Their amfoule solutions are highly regarded everywhere. They are true to label, say users, precise and in all respects trustworthy, as results indicate.

Iodine as a remedy is held in high esteem. It is one of the most satisfactory at command of the doctor when intelligently administered. But often, especially when given as an iodide, it is not well received by the stomach. Of the preparations recommended in place of the iodides Burnham's Soluble Iodine is said to be one of the best; according to the makers it may be given in fairly large doses without setting up gastric disturbance. If so it deserves the preference of prescribers. But a trial in one or two appropriate cases will serve to show that it is really well tolerated, for which samples are willingly supplied on request. Such requests should be addressed as follows: Burnham's Soluble Iodine Company, Auburndale, Mass.

It is affirmed of the iodides that the mechanism of their action is not understood; and this applies, of course, to iodine in general. Still it is obvious that they are remedial in many cases. Their most definite results are seen in the rapid absorption of certain inflammatory exudates and especially of the tertiary lesions of syphilis. Under adequate dosage lesions of this sort disappear. But the uses of iodine are perhaps too well known to require repetition. It is most often useful in ordinary practice for treatment of respiratory ailments, having a favorable influence on the excretions and assisting in the elimination of septic materials.

The flavines were well received in this country and now are being used quite extensively. Derivative salts from aniline, they are said to be about twenty times more powerful than mercury bichloride. But their effectiveness is more likely due to their unusual penetrability.

Breast


Cell

Save the Babies

Baby mortality can be reduced at least 50%, if not more.

A healthy born baby stands a better chance to live, if properly cared for and fed, than a strong man at 30 years of age. The treatment that will save babies is—

1st: The right sort of food, properly modified and properly given.
2nd: The most simple, most natural, cleanest and best nursing bottle, which is the HYGEIA.
3rd: Pure, fresh air.

We want every physician who reads Clinical Medicine, to know about the Hygeia Nursing Bottle. If you wish to see it, write for a sample, and we will send you one free, by return mail.

Our trade mark is Hygeia. Look for that name on the food-cell also, on the breast-nipple.

We have nursing bottles in two sizes—8 and 10 oz.

Breast-nipples can be obtained in black or red rubber.

We have sterilizers, rubber covers for food-cells, bottle holders to hold prepared food for the day, when kept in the ice-box.

Manufactured only by the

HYGEIA NURSING BOTTLE CO., Inc.

1206 Main Street, Buffalo, N. Y.

Beware of Gluten

"GLUTEN Bread is the Diabetic's worst enemy"—declared the late Dr. Janeway, probably America's greatest physician. There is not a gluten bread that does not contain starch in amount rarely less than 20% and often more than 40%. The safe way is to prescribe a flour with the analysis on each package showing it to be strictly non-carbohydrate, such as

LISTERS PREPARED CASEIN DIABETIC FLOUR

Absolutely Starchless

Made strictly from specially blended caseins of milk, it is necessarily free from the slightest trace of starch; and it is relieved by special process from all traces of sugar. Listers Flour is *self-rising* and can be made easily and quickly into substantial, satisfying Diabetic Bread and delicious Cookies, Muffins, Doughnuts, etc., all strictly non-carbohydrate. Packed in small, carefully weighed boxes—one for each day—suitable for a "strict diet" or part of a liberal diet.

One Month's Supply (30 Boxes)....$4.85
Fifteen Days' Supply (15 Boxes).... 2.75

Sent direct to the Physician or to his patient. Or write to us for the name of our druggist-agent nearest to you.

LISTER BROS., Inc., 405 Lexington Ave., New York

COAST STATES—*Starchless Food Co.*
412 Kerckhoff Bldg., Los Angeles, Cal.

CANADA—*W. Lloyd Wood*
64 Gerrard St., Toronto, Can.

This property of theirs is rather remarkable. Experimentally, when injected into the bladder of a dog, Acriflavine was found to have penetrated to the muscle layer within ten minutes.

While useful against infected wounds as a wet dressing or packing, Acriflavine is most often employed as a gonocide. Some use it by injection in 1:1000 (physiological salt) solution or weaker; others in 1:4000 solution by irrigation, claiming best results from this method. And again, it is being used in alternation with a silver solution, as Argyn, excellent results being said to follow such usage. In any event, it is important that the urine be alkalinized if highly acid.

Acriflavine is supplied by The Abbott Laboratories, Chicago, in tablets for extemporizing solutions. They are handy and serve for making any recommended strength. A booklet of working data, gathered from the experience of prominent users, may be had by addressing this firm.

Once in a while some thinking plodding medical mind conceives a remedy combination that is really and exceptionally successful. The originator finds it so in his practice; others find it so in theirs; and soon the idea is taken up by a legion of practitioners and does not soon die but on the contrary persist for years by reason of its transcendent value. Sometimes we may not be able to account for its action; but certainly ample excuse of impiricism, although many scoff at it, lies in the results obtained. After all results are what both doctor and patient want; how these results are produced within the organism is a matter of secondary importance.

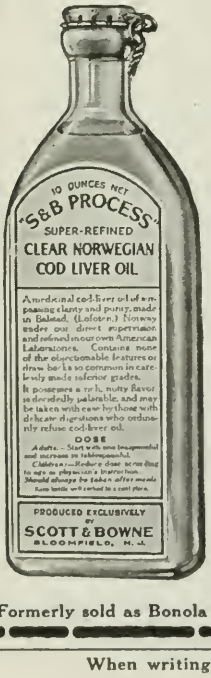
For instance, the Columbus Pharmacal Company for some six years or more have been offering what they call Goitre Special Tablets, the merits of which are attested by many users; that the demand for them grows constantly as time passes speaks in their favor, and seemingly entitles them to a trial in goitre cases. For formula and other data the reader is requested to write the company, address 330 Oak Street, Columbus, Ohio.

Years ago pain was considered salutory. People were exhorted to endure it, rather than attempt to avoid it. In fact, there were laws in the old days imposing heavy penalties on persons who contrived to relieve the sufferer. Even within memory of most of us the use of chloroform or opiates in labor, as means of carrying the mother through the painful ordeal, were viewed with holy horror.

But happily we have become more sensible. No doctor withholds an anodyne from a patient. He only chooses it circumspectly, prefers the coaltar anodynes not singly but combined, as in "Phenalgin, in which the aim is to avoid the depression common to these agents. Those who have never tried Phenalgin should write to Geo. C. Cook, New York City, for a sample.

How to feed the diabetic is a problem. In the endeavor to restrict the intake of harmful food

SUPREME IN ITS FIELD



Physiologists teach that cod-liver oil stands supreme among fats in the ease with which it is oxidized and absorbed and—as a fruitful source of the important anti-rachitic vitamine.

The "S. & B. PROCESS"

Clear Norwegian (Lofoten) Cod-liver Oil

meets the need for an easily absorbed, ***anti-rachitic nutrient*** in the best possible manner.

When you prescribe the "S. & B. Process" you know that your patient will absorb 100% pure oil of the ***True Gadus Morrhuae.***

Liberal samples to physicians on request.

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elements, the diabetic menu is too often narrowed down to a degree that works unbearable mental hardship on the patient and often seriously weakens his body.

In particular, he keenly feels the deprivation of bread made from ordinary flour. In the diabetic, perhaps the strongest and most insistent of all cravings is that for a slice of the once common-place, every-day bread, now prohibited.

It is here that Lister's Diabetic Flour proves its great value. Not a gluten flour, but evolved from a blend of readily assimilated caseins—absolutely starch-free, sugar-free and purin-free—and easily made into nourishing, satisfying bread, as well as appetizing muffins, noodles, dumplings, French toast, cookies, etc. Lister's Diabetic Flour is superior for many reasons. It is self-rising, and put up in moisture-proof, carefully-measured, small packages, which is of great assistance to both physician and patient. Each package is accompanied by easily-followed recipes for making a number of appetite-tempting, strictly non-carbohydrate dishes.

The advent of arsenic, as salvarsan and related products, into the therapy of syphilis has served to draw attention away from the old orthodox remedies, mercury and iodine, this largely by reason of the somewhat spectacular disappearance of surface manifestations in many cases under arscenic medication.

With many, the question arises whether such departure from the old is justified. Although less speedy of action perhaps, than the arsenic preparations, are not mercury and iodine after all really necessary in the treatment of this disease, in many cases at least? And will the pendulum of professional opinion swing back, after a time, to the well known mercurial treatment, in conjunction with or followed by iodine?

Not a few hold fast to the idea of giving the two together. Those who do, will be interested in Pil·Mixed Treatment (Chicester) which is being offered by the Hillside Chemical Company, Newburgh, N. Y. This combination is said to be exceptionally well borne by the stomach and the organism as a whole, while results, as a rule, are reported satisfactory. Samples are being offered.

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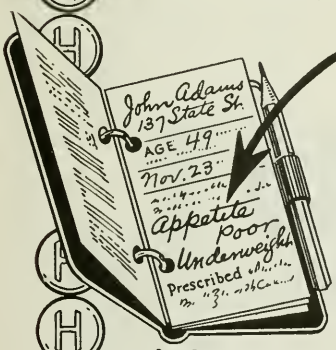

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ments of the sick, the convalescent, and the aged. It is to be remembered in cases needing a light and easily digested dietary, when ordinary food is distasteful and is otherwise ill-advised.

It is said that the Philo Burt Spinal Appliance, shown this month in our advertising section, has been used by more than 30,000 persons since it was invented. A good many, we should say. But it deserves even greater popularity than this. A great many now handicapped by spinal weakness or deformity could, without doubt, have been rescued from their fate by recourse, earlier in life, to this most ingenious contrivance for supporting the head and upper trunk, and mechanically fixing the deflected vertebrae.

Bear it in mind for appropriate cases, as convalescents from infantile paralysis. Unfortunately, all children needing it are not brought to the notice of the physician.

The value of mineral oil in conditions of intestinal stasis is now generally acknowledged. As a change from cathartic drugs it is to be commended, especially for persons habitually constipated and for years altogether dependent upon cathartics. The oil acts only mechanically, lubricating the intestinal mucosa, softening the fecal masses, and so facilitating the passage of food residue through the lumen of the bowel.

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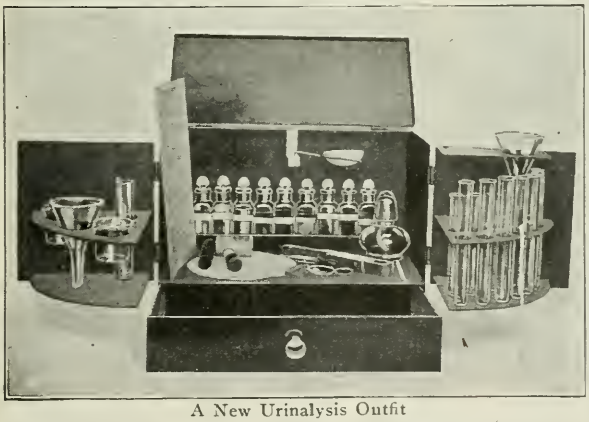

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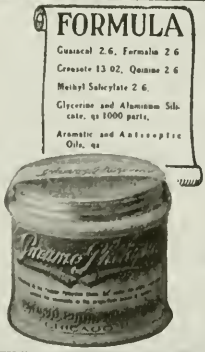

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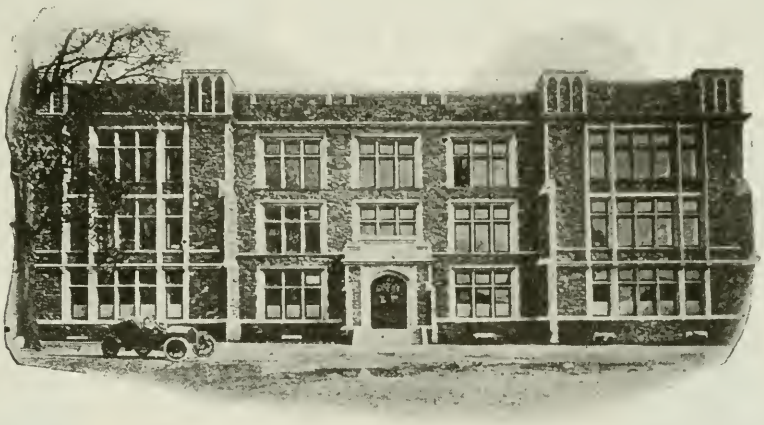

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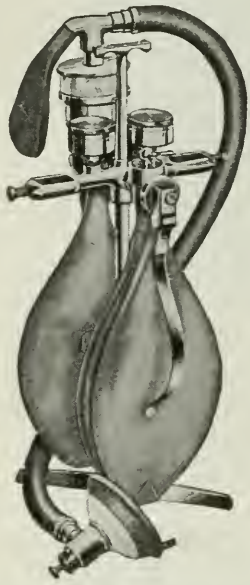

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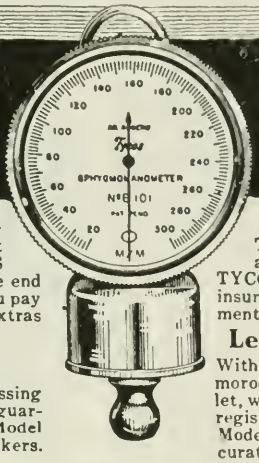

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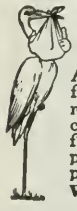

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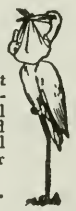

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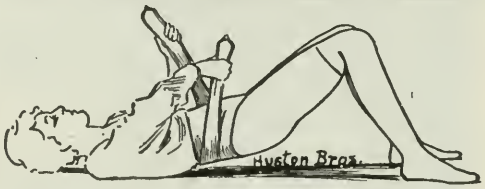

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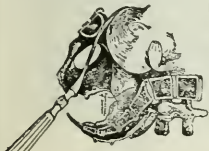

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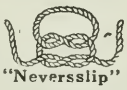

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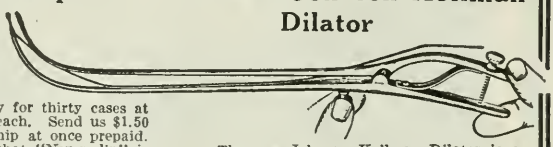

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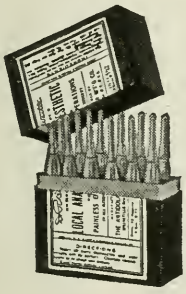

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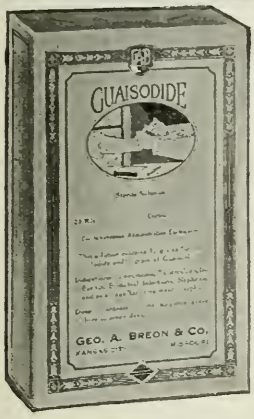

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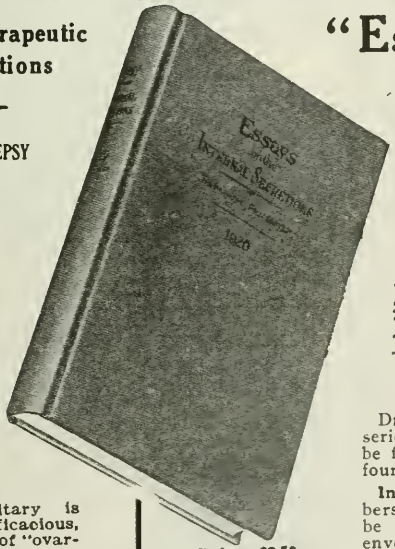

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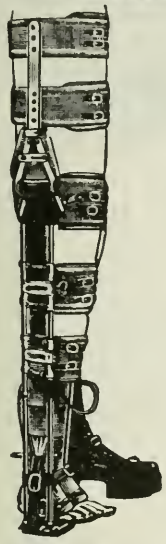

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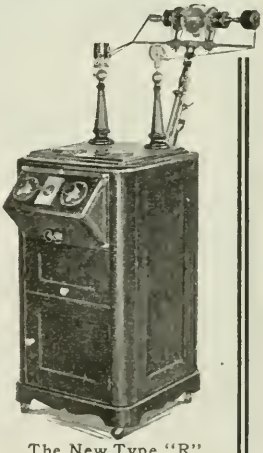

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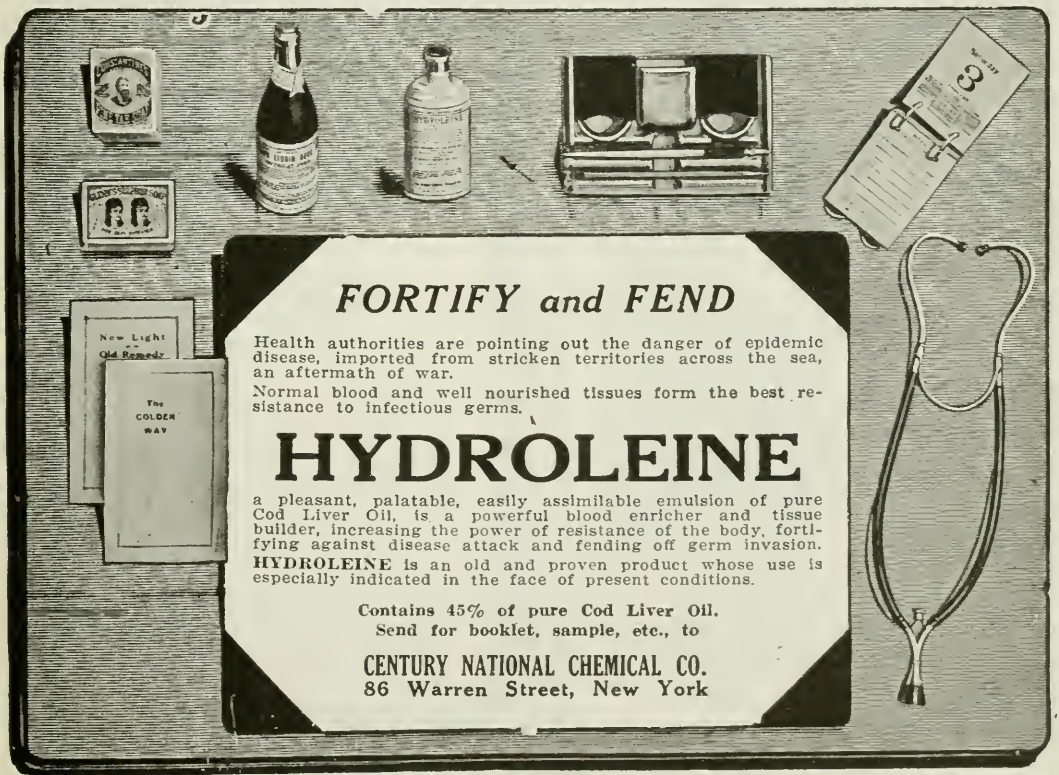
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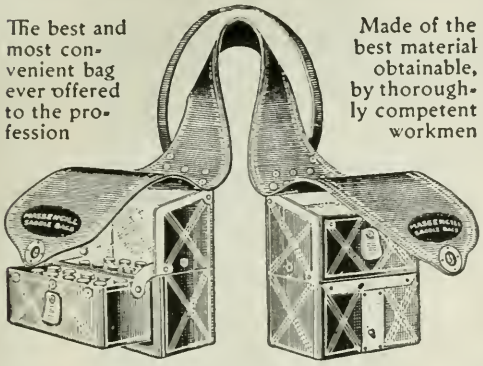

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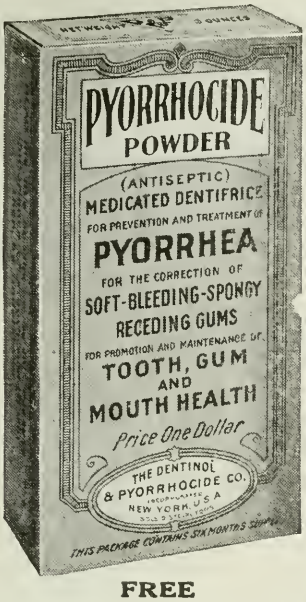

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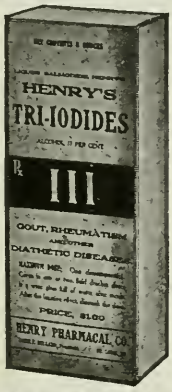

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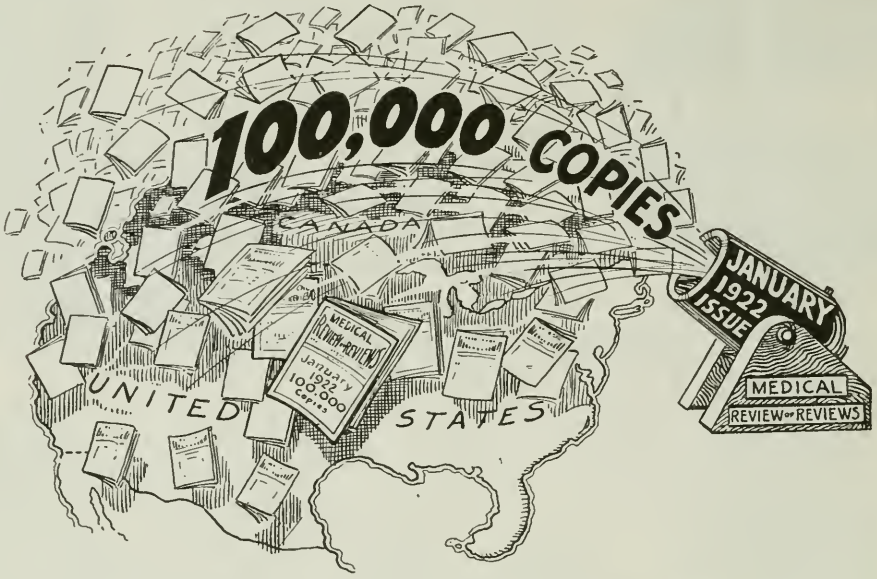

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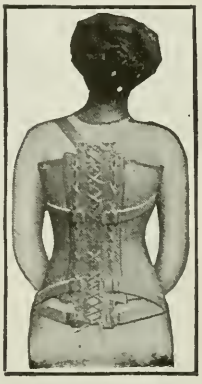

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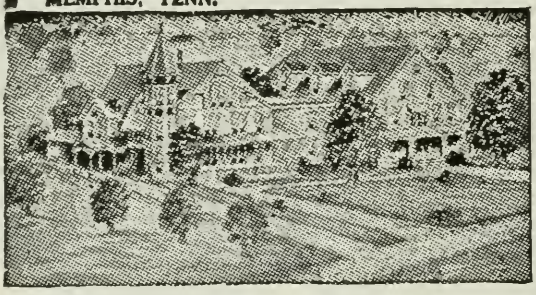

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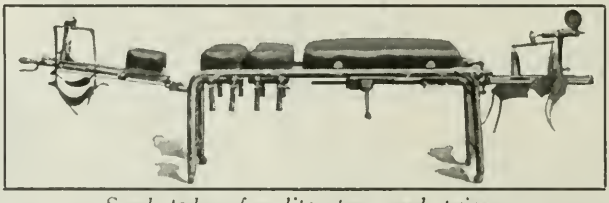

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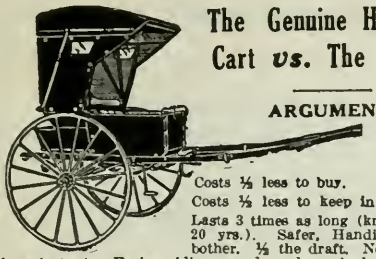

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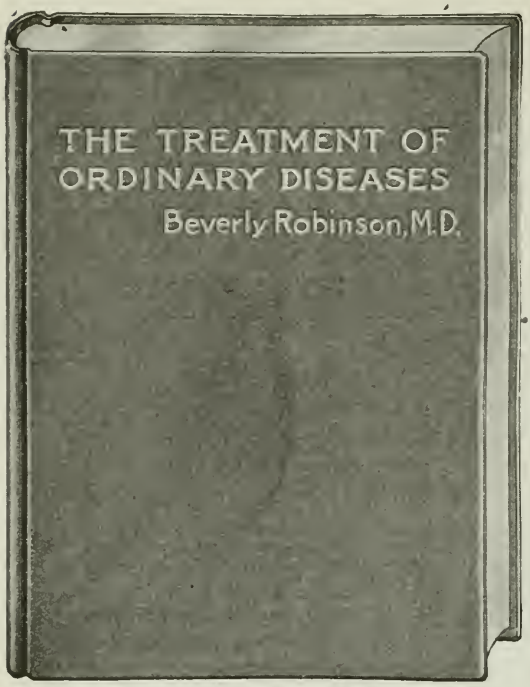

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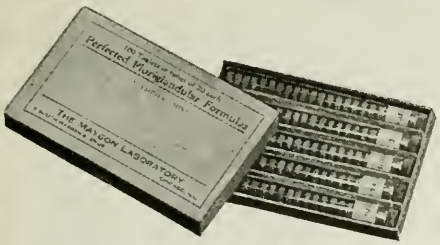

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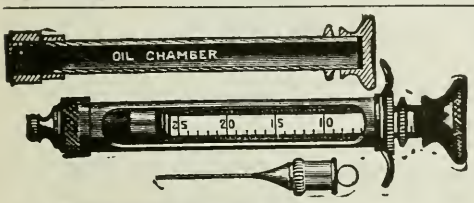

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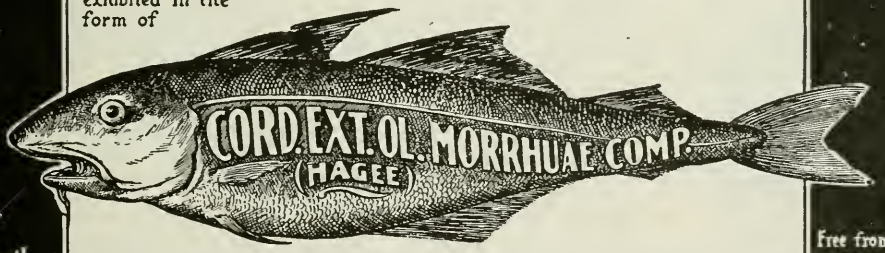

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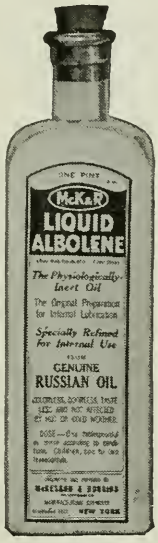

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